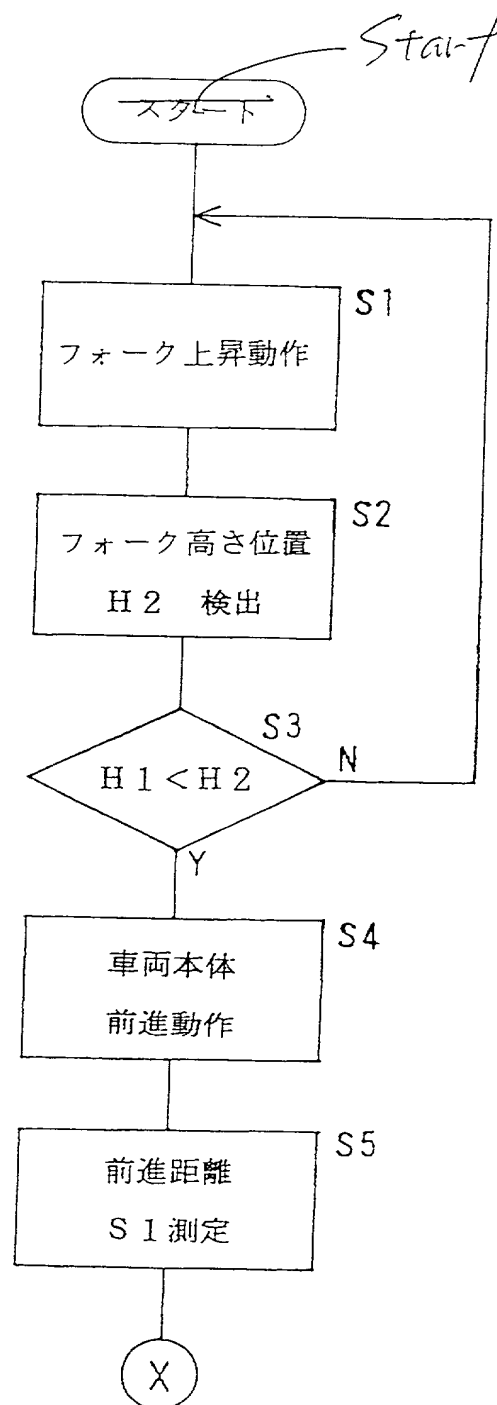
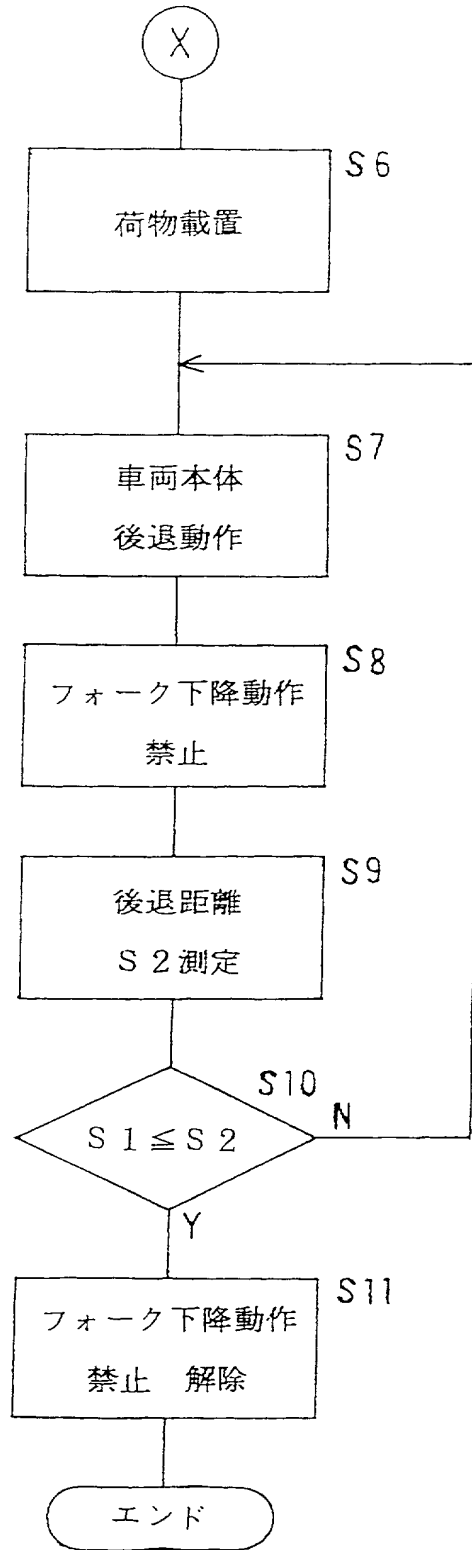


1: lift unit; 2: lift height detecting section; 3: running system; 4: traveling distance measuring section; 5: information section; 6: alarm section; 7: control device; 8: memory unit; 9: arithmetic processing unit 9

FIG. 2

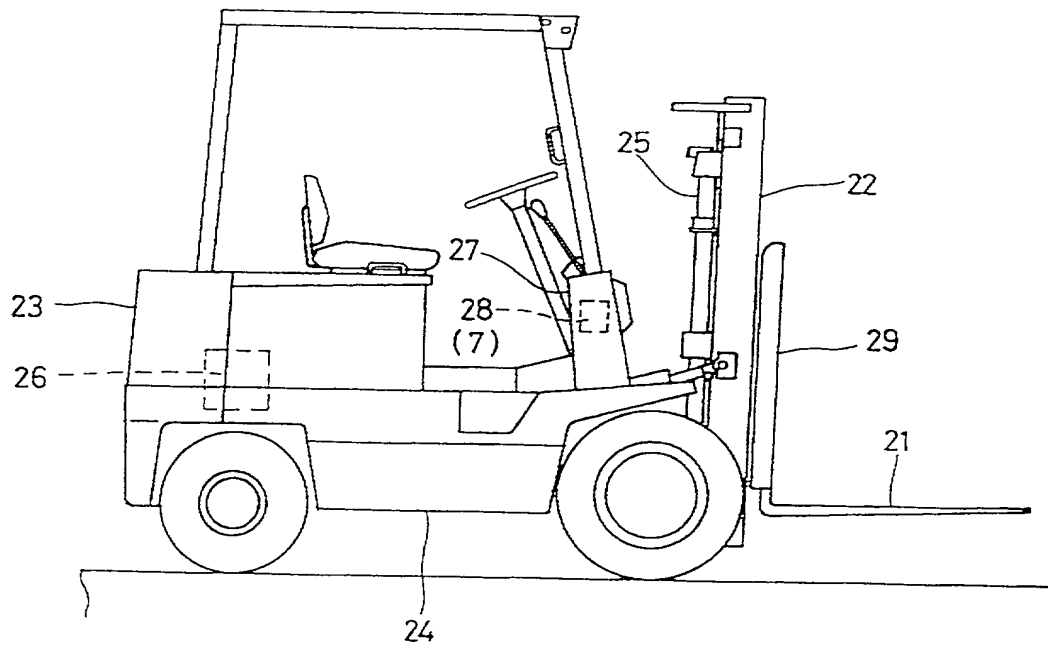


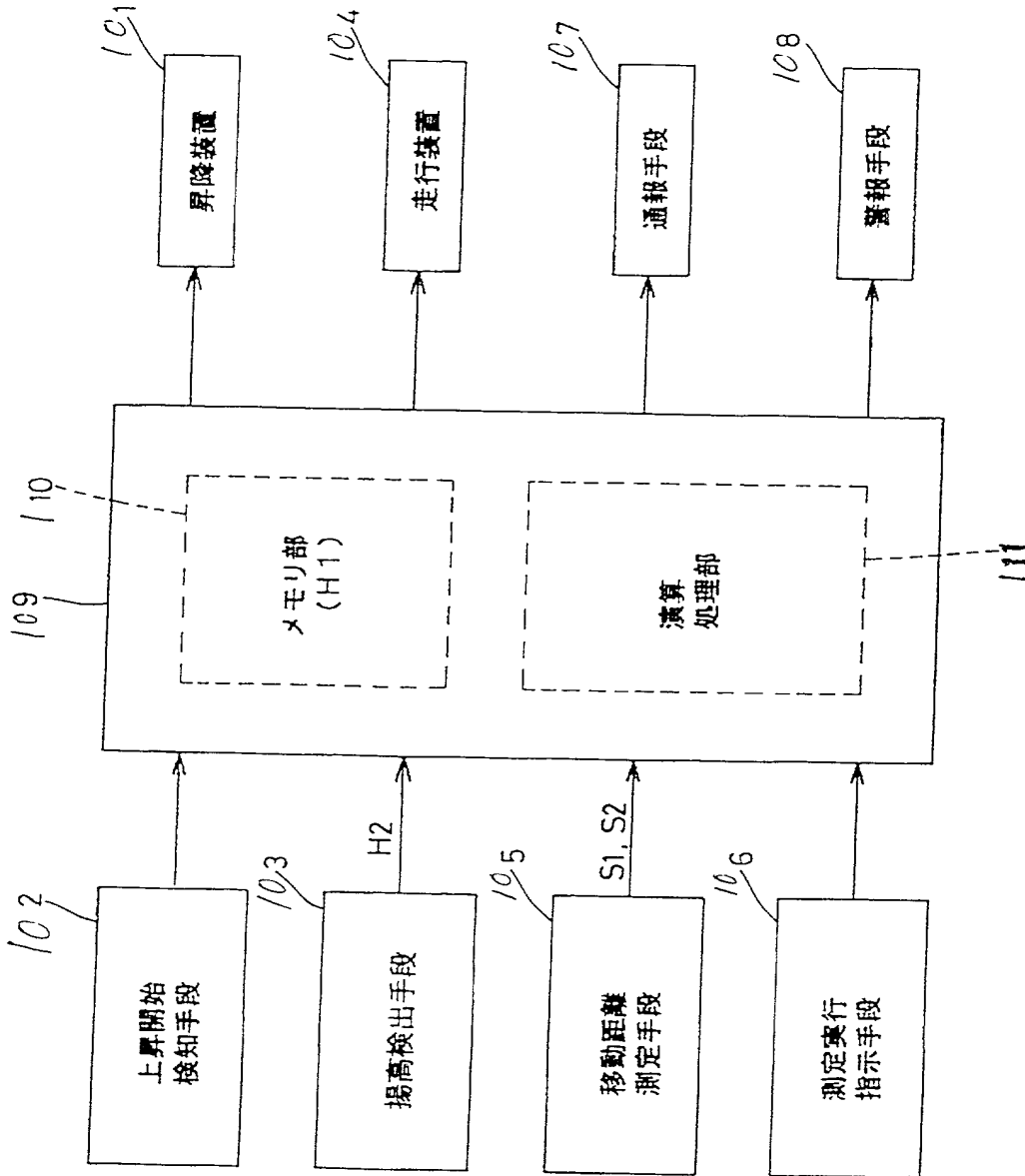
s1: raise forks; s2: detect fork vertical position H2; s4: move forward the vehicle main body; s5: measure a forward distance S5;



s6: set a cargo on the carriers; s7: start the rearward movement of vehicle main body; s8: prohibit the lowering movement of forks; s9: measure a rearward distance S2; S10: cancel the prohibition of lowering movement of the forks; end.

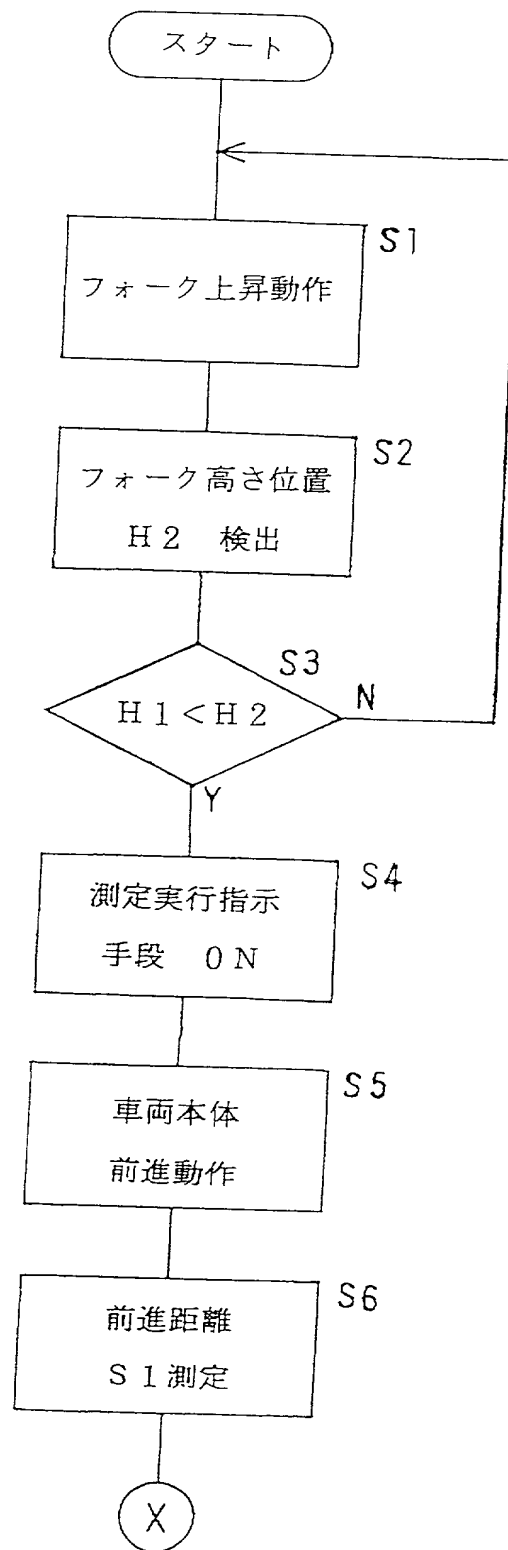
FIG. 4





101: lift unit; 2: rising start-up detecting section; 103: lift height detecting section; 4: running system; 5: traveling distance measuring section; 6: measurement execution designating section; 7: information section; 8: alarm section; 9: controller; 10: memory unit; 11: arithmetic processing unit.

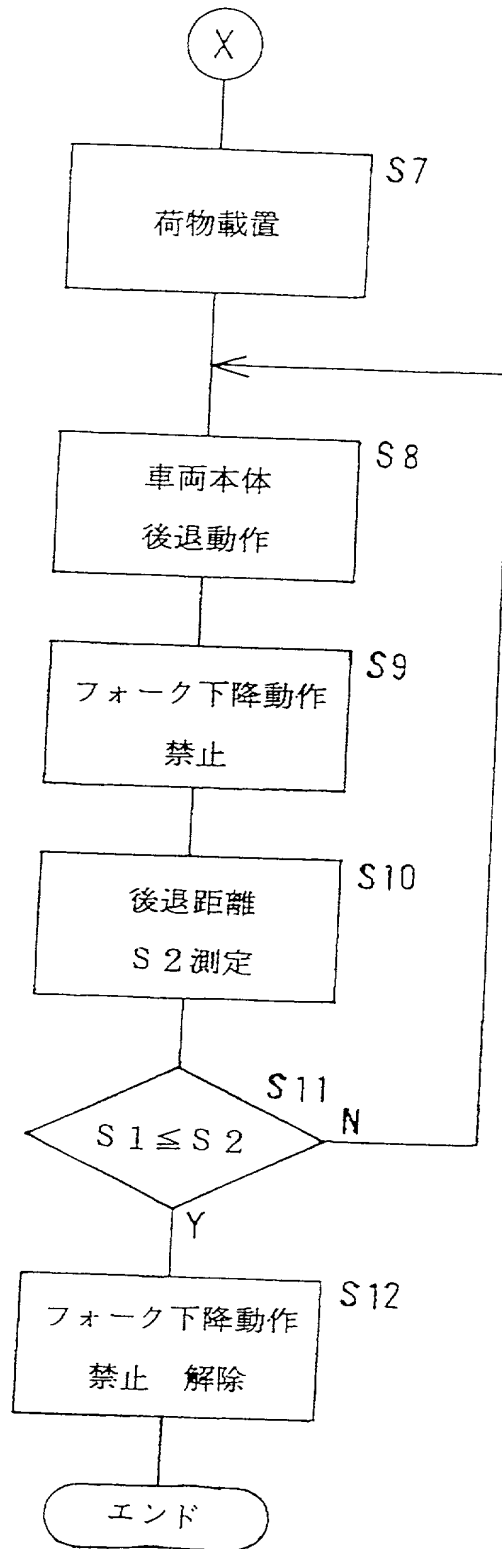
FIG. 6



Start; s1: raise forks; s2: detect fork vertical position; s4: switch on sectionurement execution designating

means; s5: start the forward movement of vehicle main body; s6: sectionure a forward distance S1;

FIG. 7



s7: set a cargo on the carriers; s8: start the rearward movement of vehicle main body; s9: prohibit the lowering movement of forks; s10: sectionure a rearward distance S2; s12: cancel the prohibition of the lowering movement of forks; end.

FIG. 8

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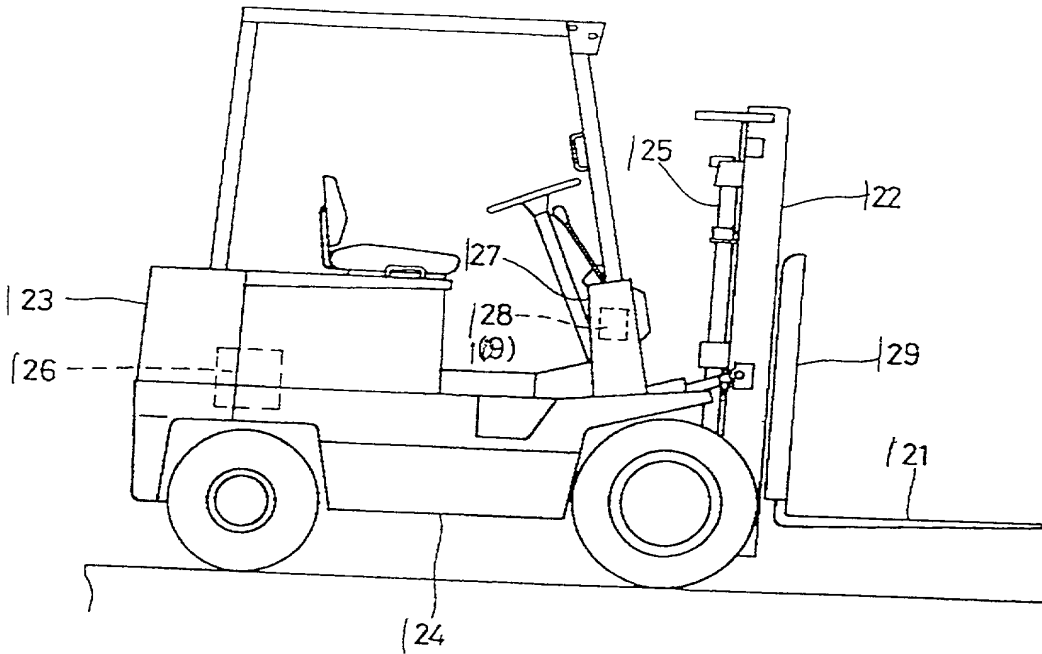
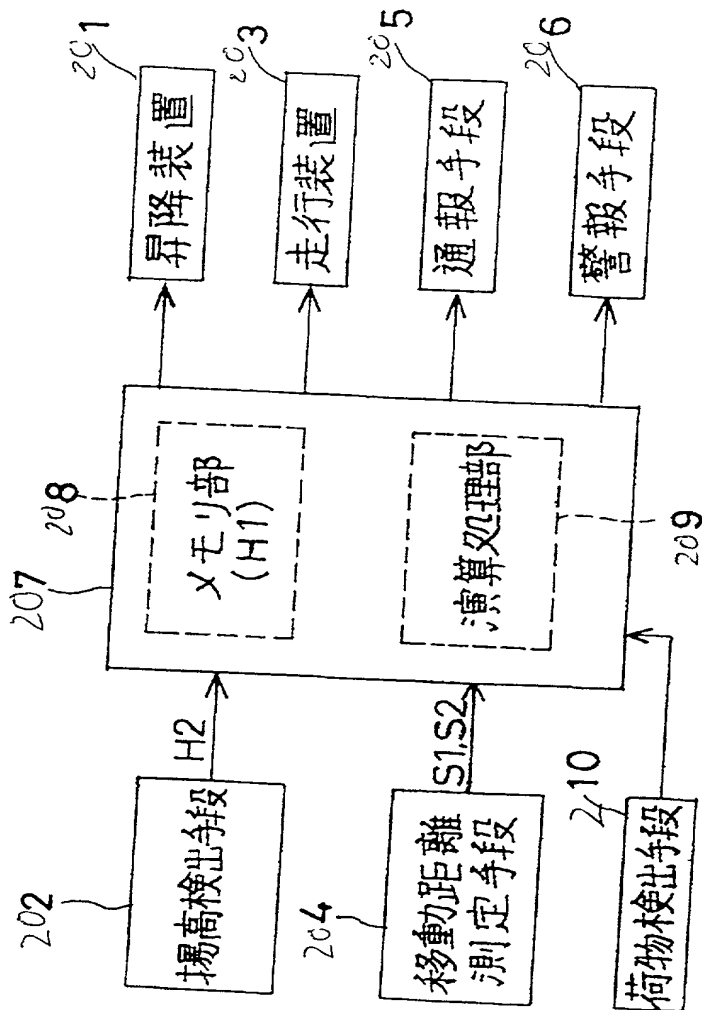
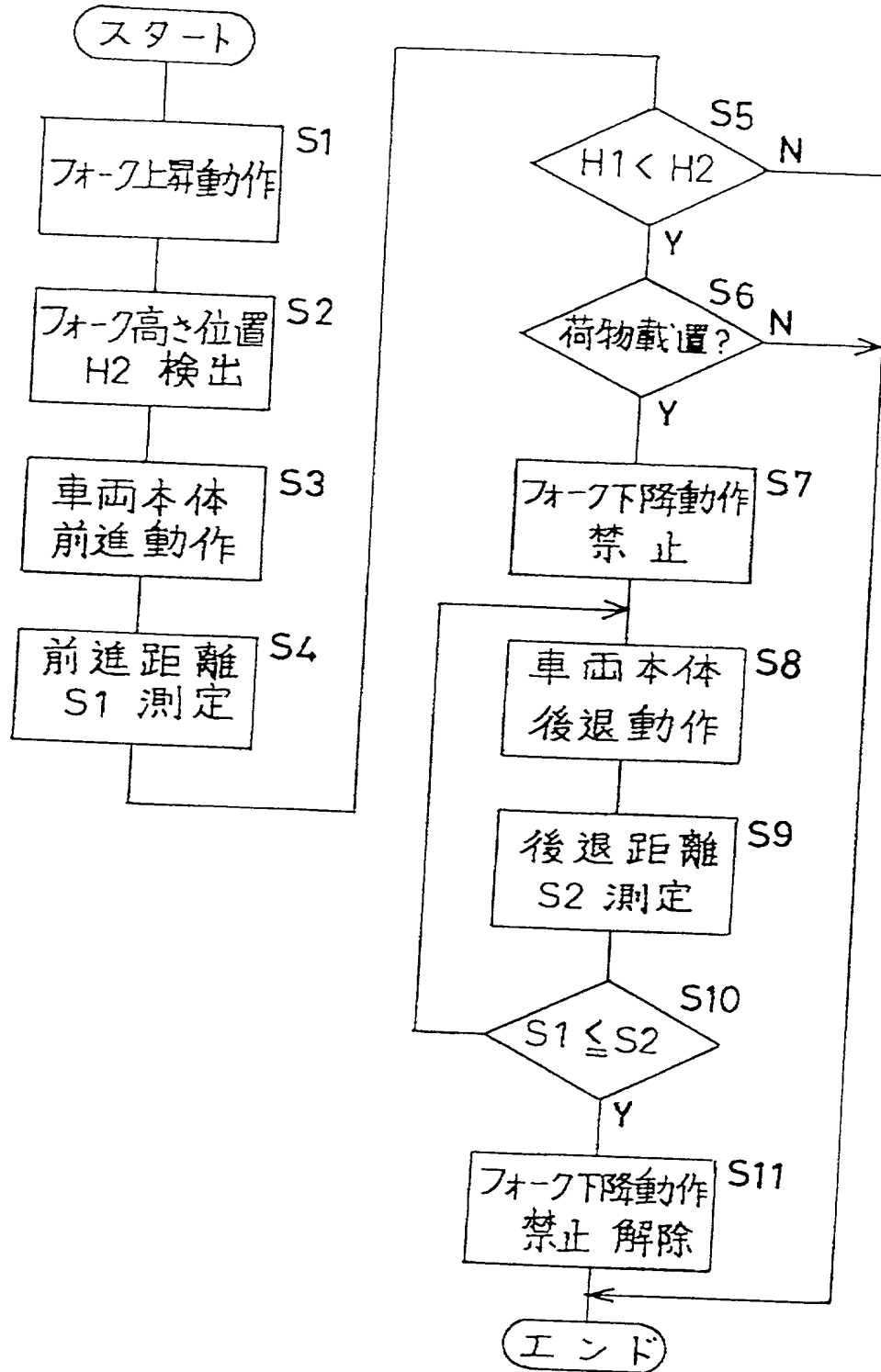


FIG. 8

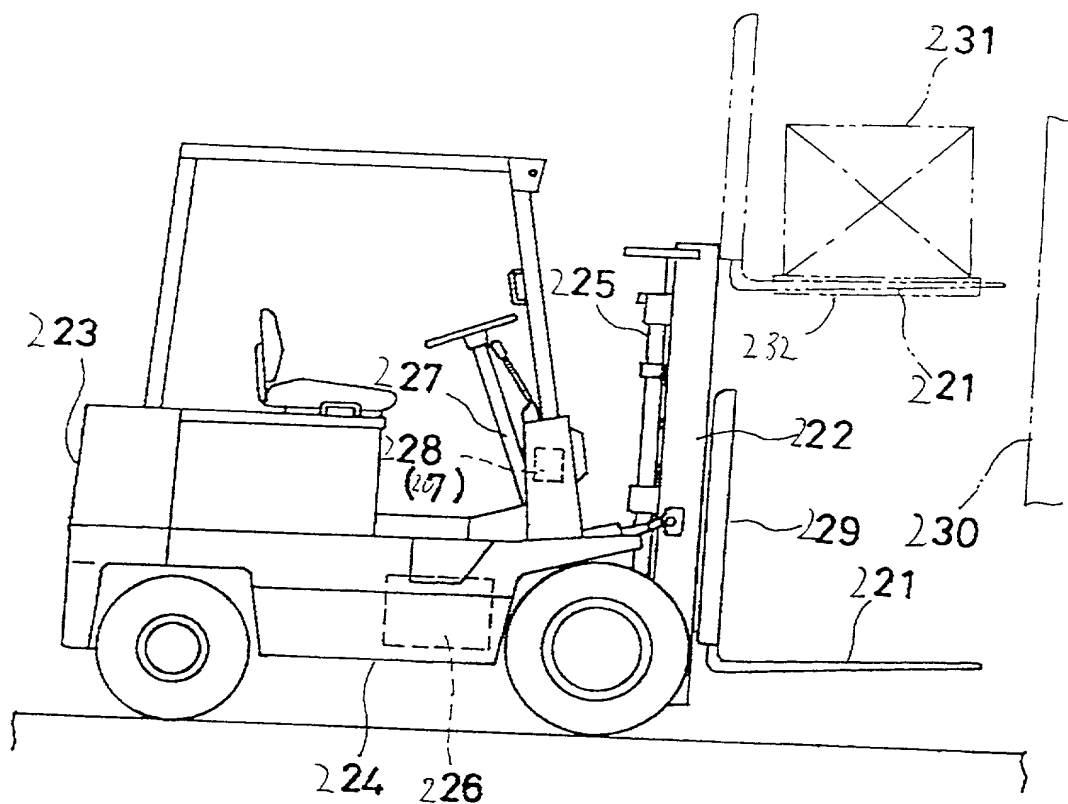


1: lift unit 201: lift height detecting section; 3: running system; 4: traveling distance measuring section; 5: information section; 6: alarm section; 7: controller; 8: memory unit; 9: arithmetic processing unit (movement control section); 10: cargo detecting section.



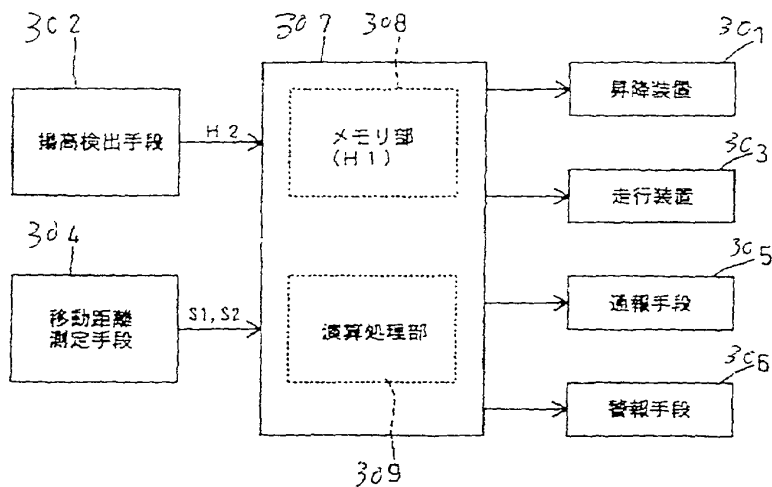
Start; s1: raise forks; s2: detect fork vertical position H2; s3: move vehicle main body forward; s4: measure a forward distance S6: is a cargo set on forks?; s7: prohibit the lowering movement of forks; s8: move vehicle main body rearward; s9: measure a rearward distance; s10: cancel the prohibition of the lowering movement of forks; end.

FIG. 11



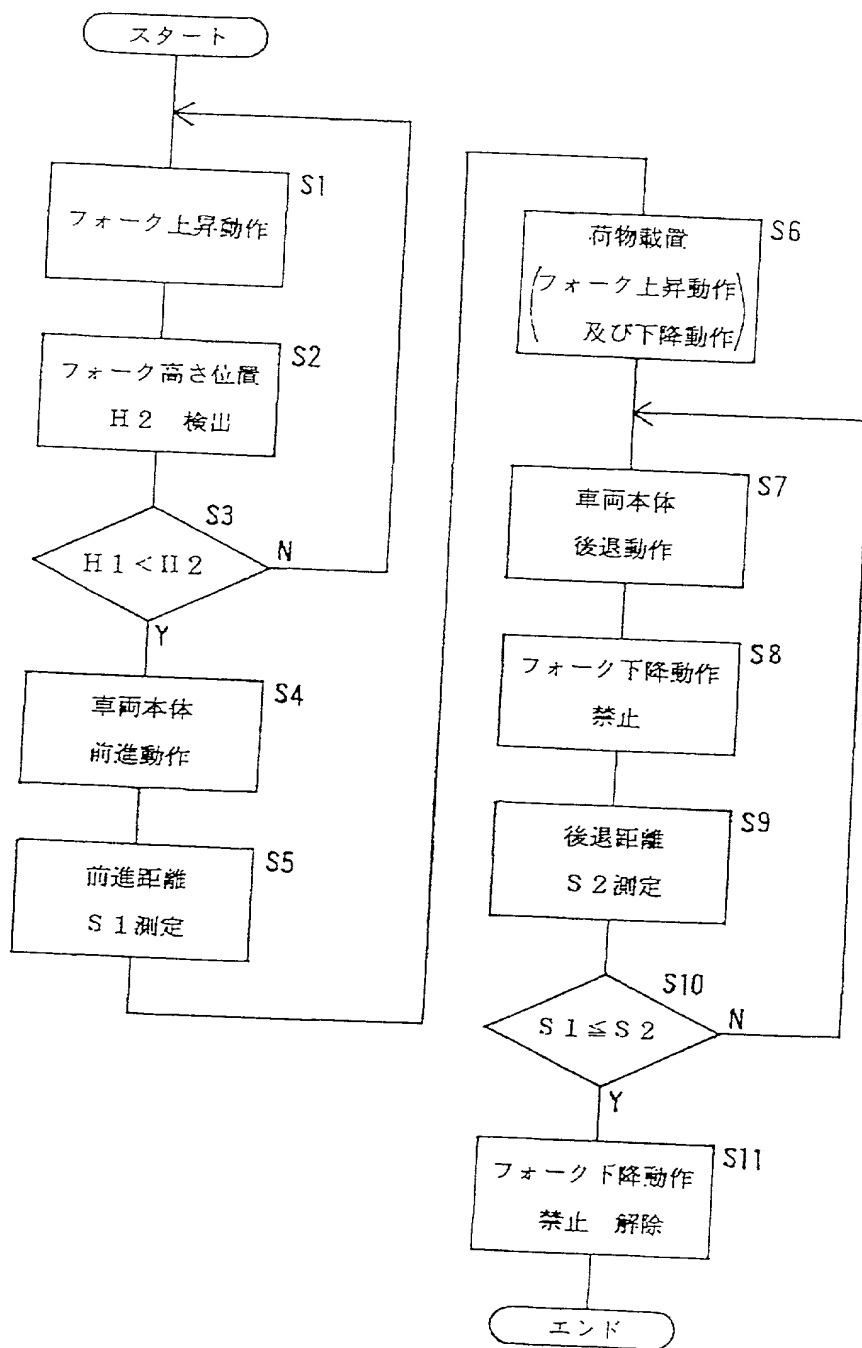
097995 0640
FIG. 11

FIG. 12



301: lift unit; 2: lift height detecting section; 3: running system; 4: traveling distance measuring section; 5: information section; 6: alarm section; 7: controller; 8: memory unit 309: arithmetic processing unit (movement control section) 321: fork (cargo carrier) 324: vehicle main body; 331: cargo; H1: reference position; H2: vertical position; S1: forward distance; S2: rearward distance.

FIG. 13



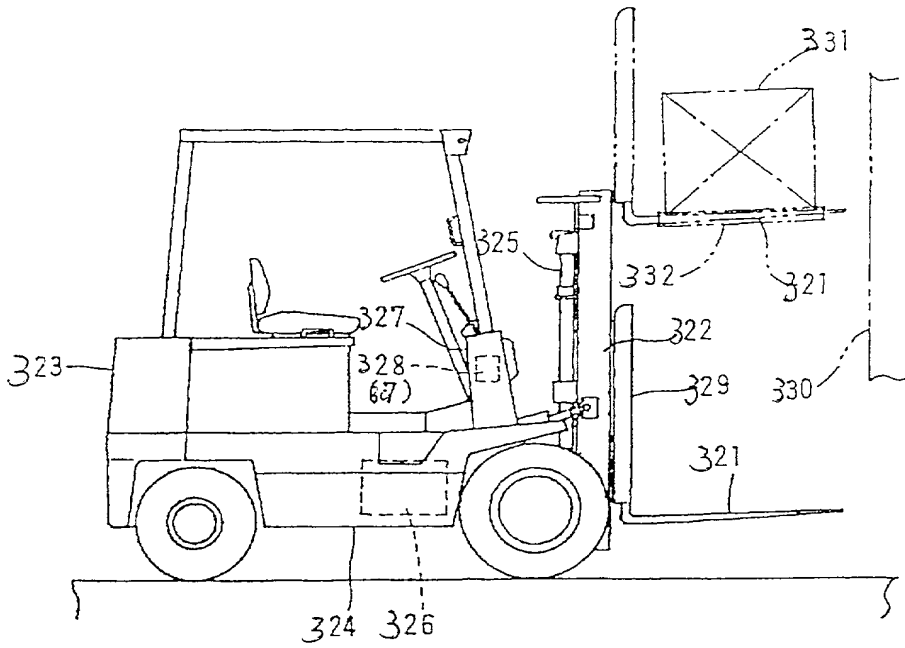
Start; s1: raise forks; s2: detect fork vertical position; s4: move forward vehicle main body; s5: measure a forward distance S1; s6: set a cargo on the cargo carriers (forks are raised and lowered); s7: move rearward vehicle main body; s8: prohibit the lowering movement of forks; s9: measure a rearward distance S2; s11: cancel the prohibition of the lowering movement of forks; end.

FIG. 14

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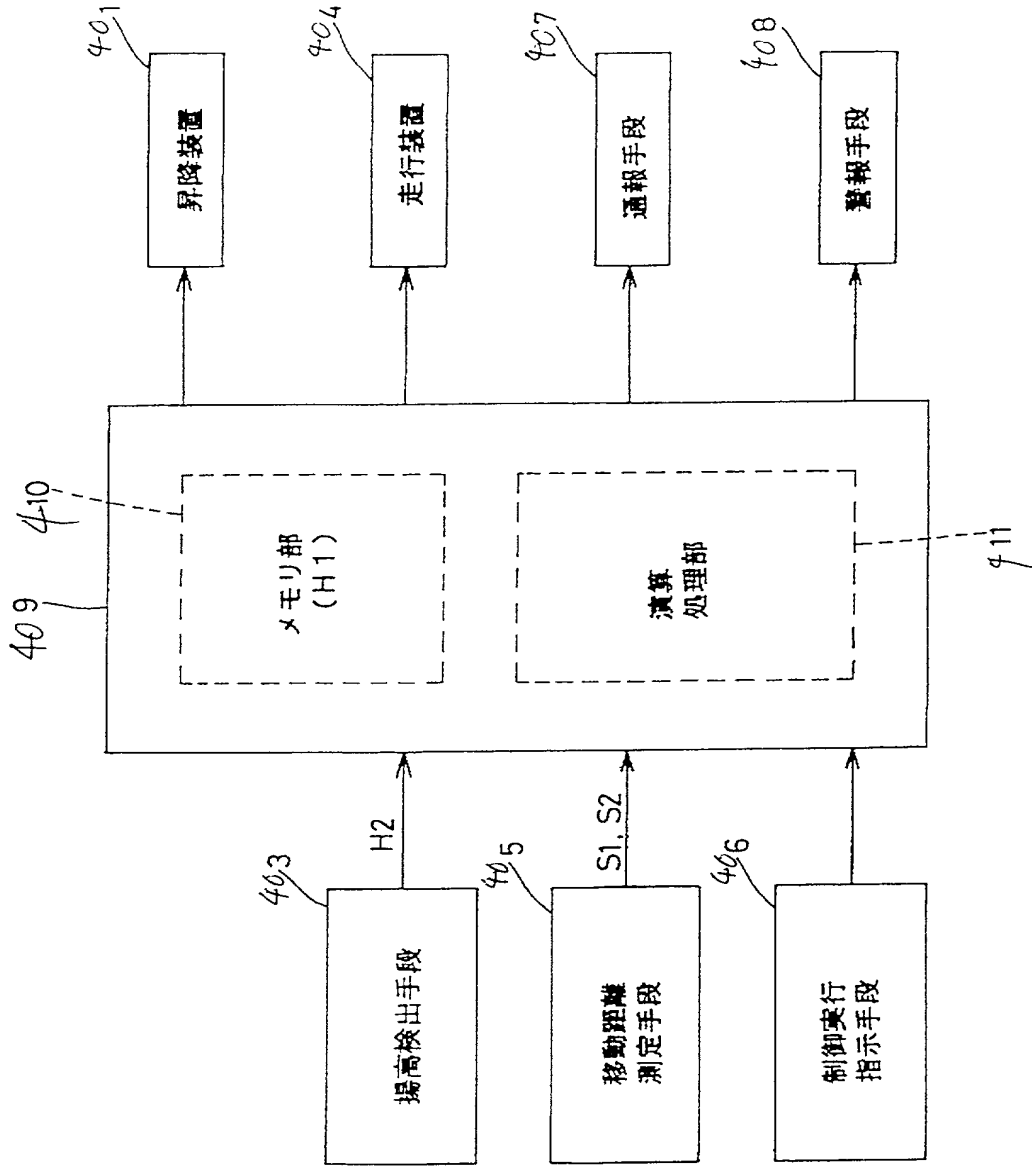


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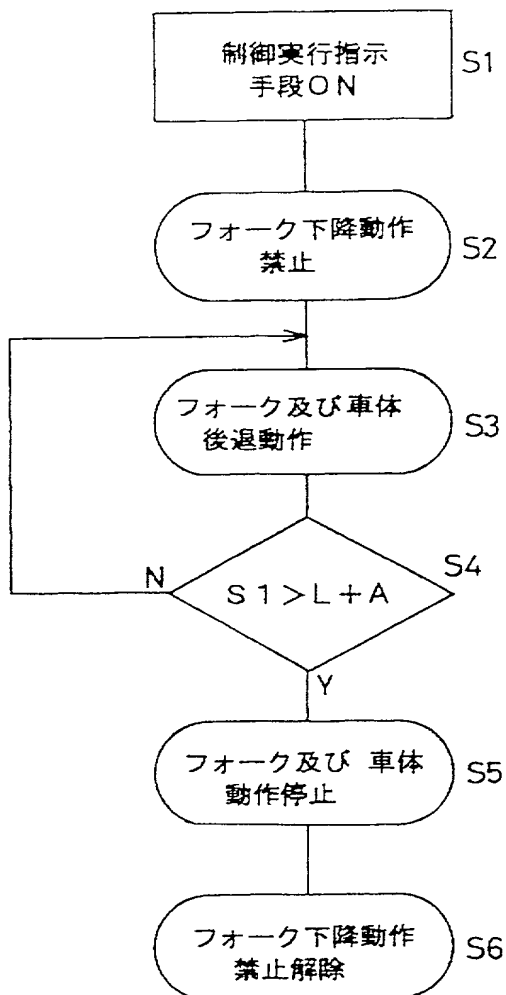
44

FIG. 15



401: lift unit; 403: lift height detecting section; 405: traveling distance measuring section 406: control execution designating section 407: alarm section; 410: memory unit 411: arithmetic processing unit (movement control section).

FIG. 16



s1: switch on control execution designating section; s2: prohibit the lowering movement of forks; s3: move rearward forks and vehicle main body; s5: stop forks and vehicle main body; s6: cancel the prohibition of the lowering movement of forks.

FIG. 17

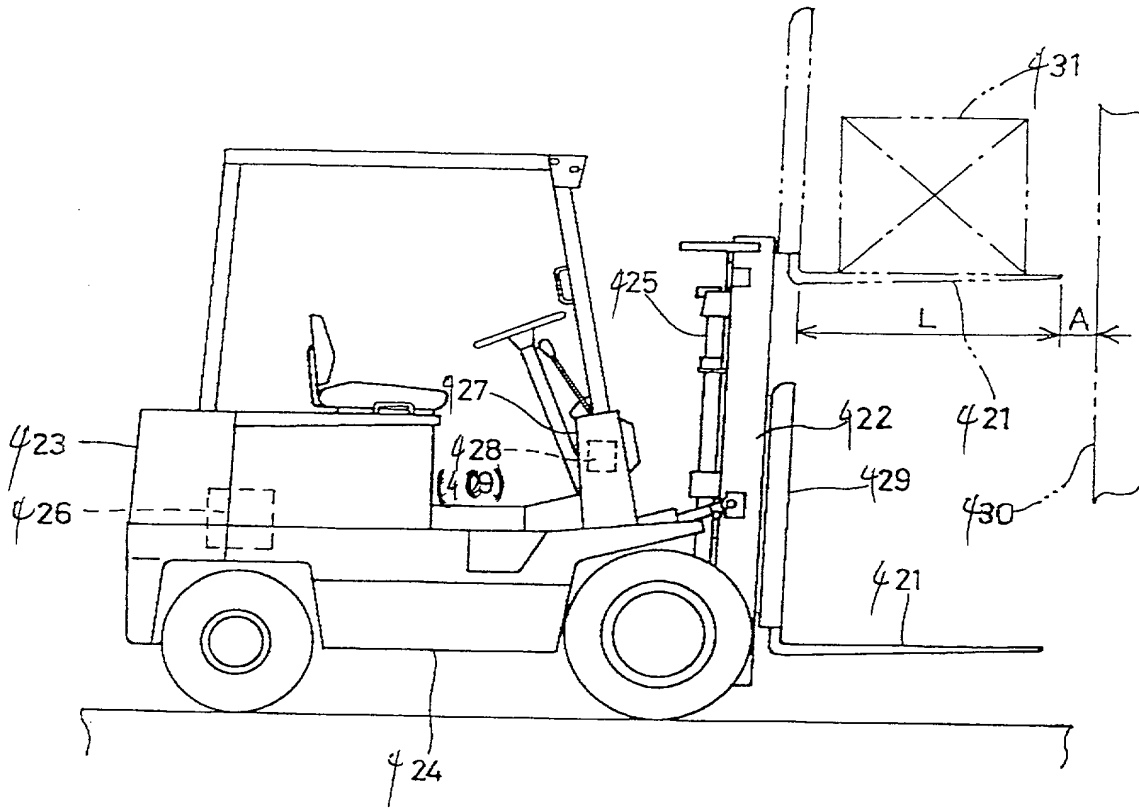
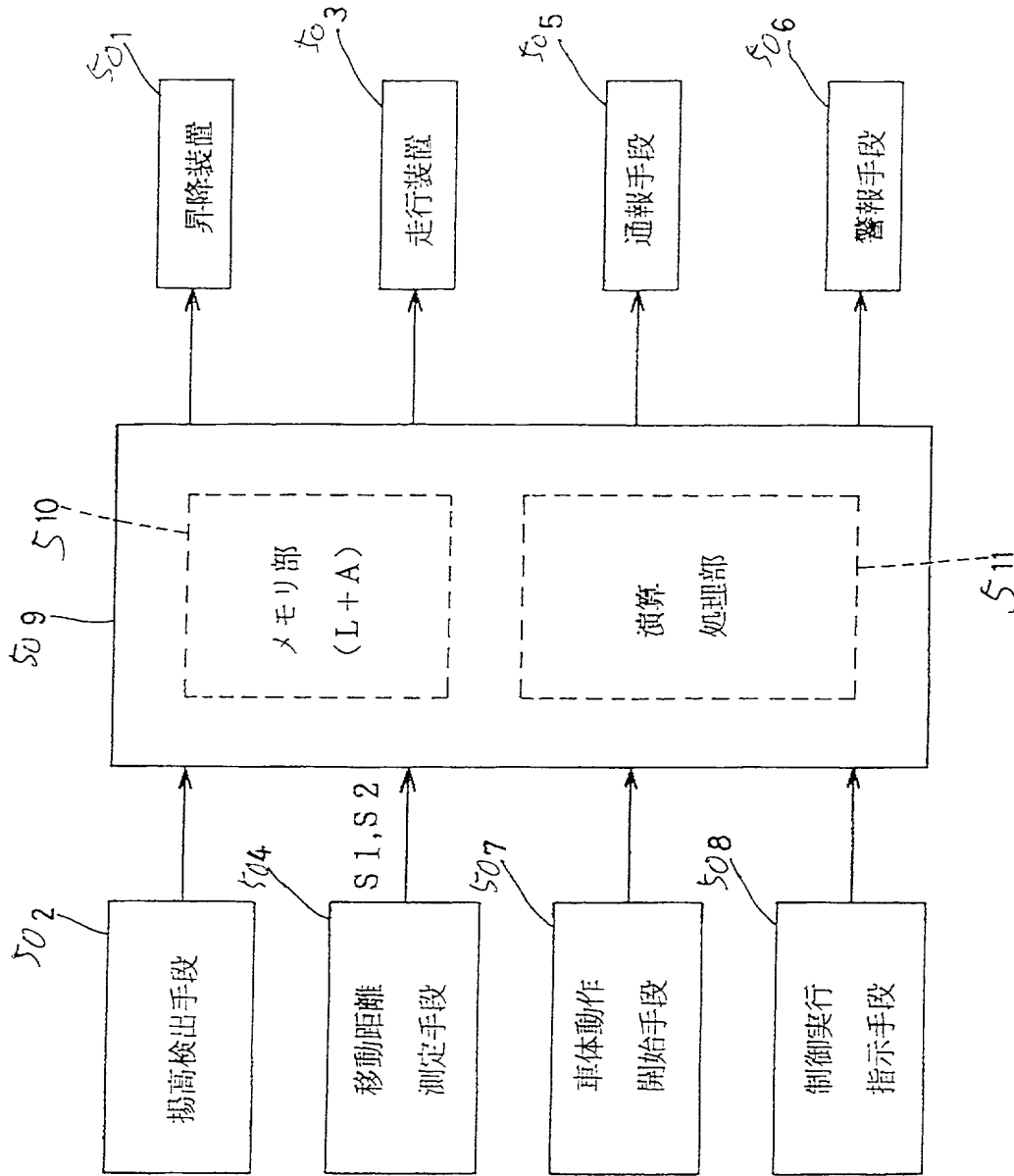
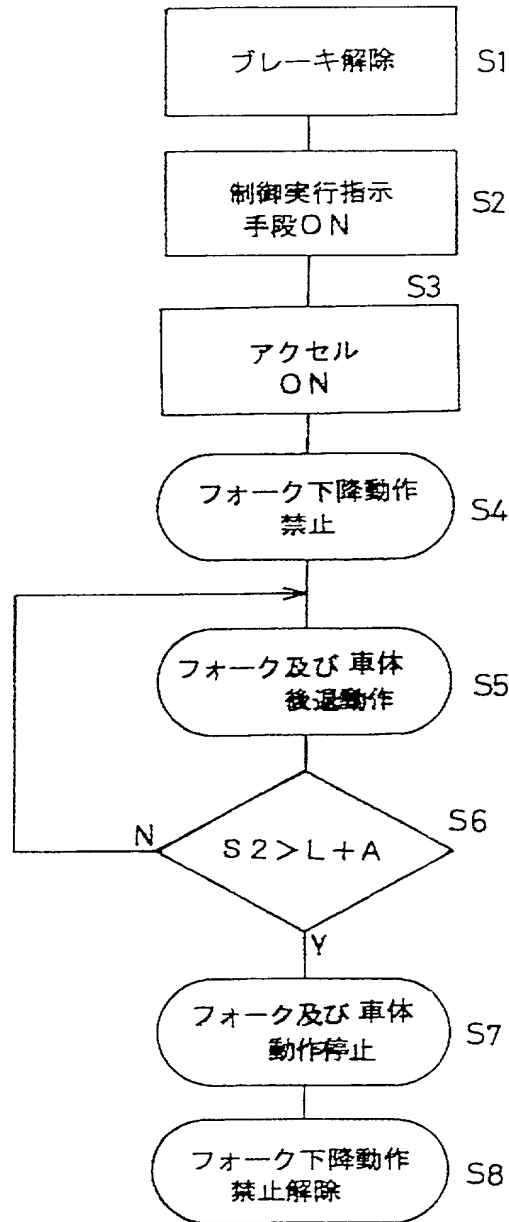


FIG. 18



501: lift unit; 2: lift height detecting section 503: running system; 4: traveling distance measuring section; 5: information section; 6: alarm section; 7: accelerator pedal; 8: control execution designating section; 9: memory unit; 11: arithmetic processing unit

FIG. 19



s1: release brake; s2: switch on control execution designating section; s3: depress accelerator pedal; s4: prohibit the lowering movement of forks; s5: move rearward forks and vehicle main body; s7: stop forks and vehicle main body; s8: cancel the prohibition of the lowering movement of forks.

FIG. 20

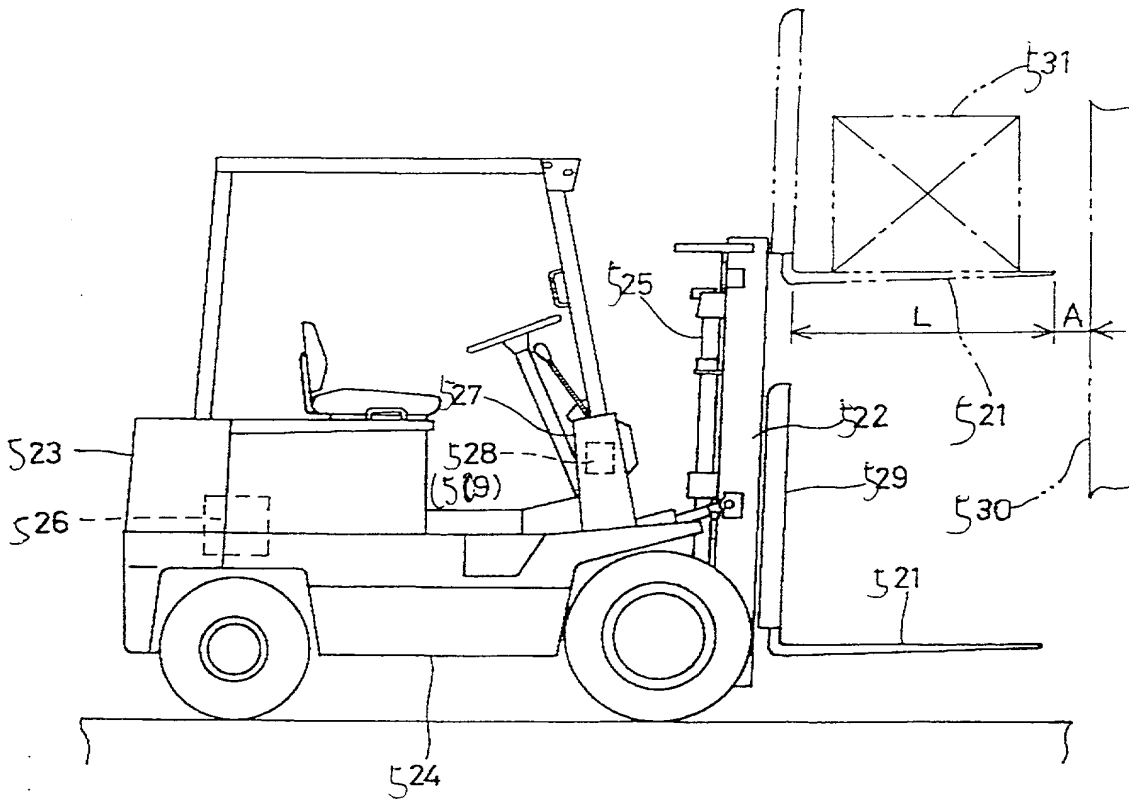
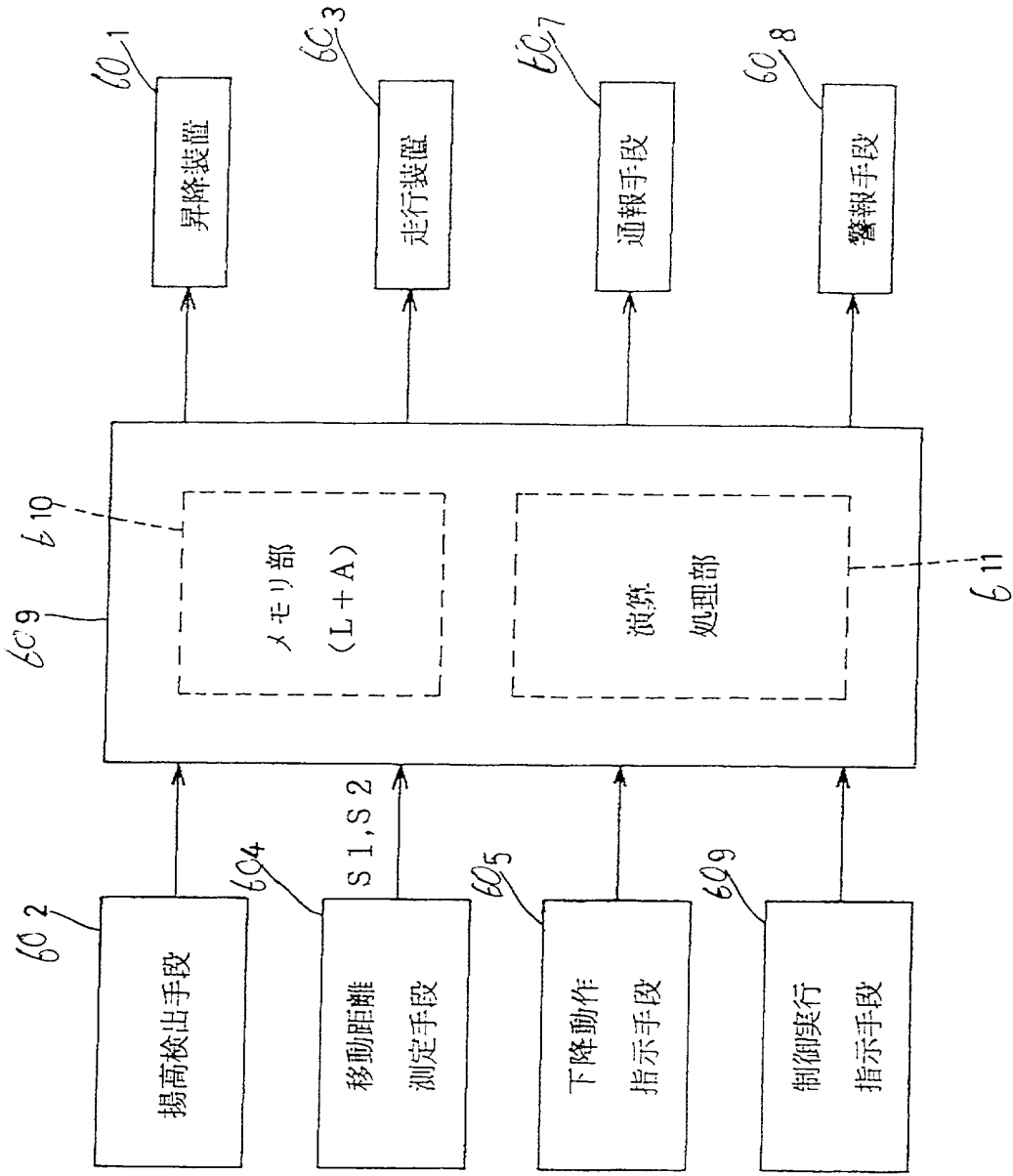
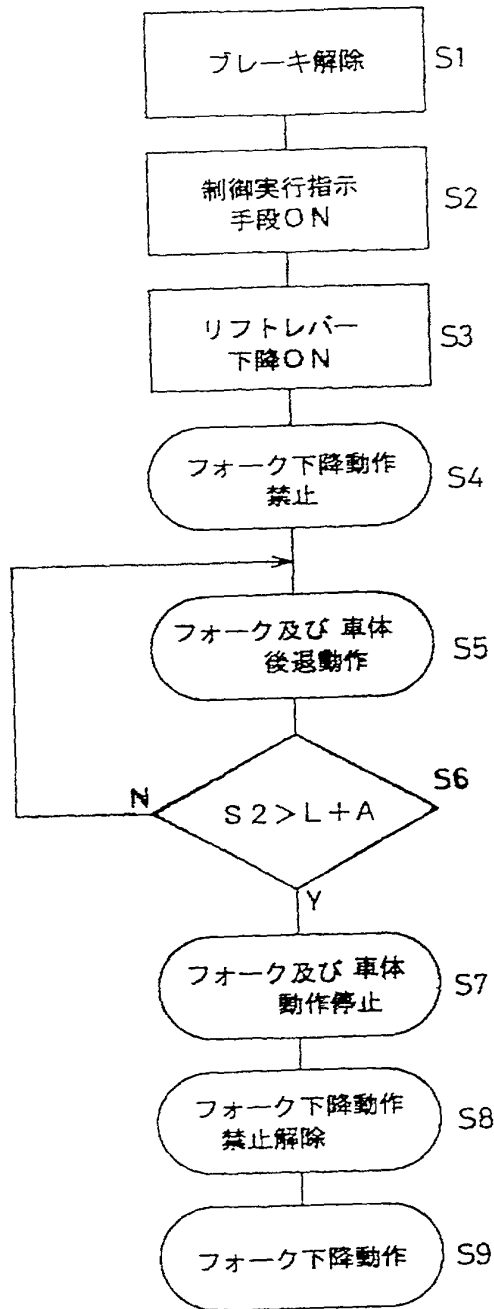


FIG. 21



60: lift unit; 2: lift height detecting section; 3: running system; 4: traveling distance measuring section; 5: lowering movement designating section; 6: controller; 7: information section; 8: alarm section; 9: control execution designating section; 10: memory unit; 11: arithmetic processing unit

FIG. 22



s1: release brake; s2: switch on control execution designating section; s3: switch the lift lever on for lowering movement of forks; s4: prohibit the lowering movement of forks; s5: move rearward forks and vehicle main body; s7: stop forks and vehicle main body; s8: cancel the prohibition of the lowering movement of forks; s9: lower forks.

FIG. 23

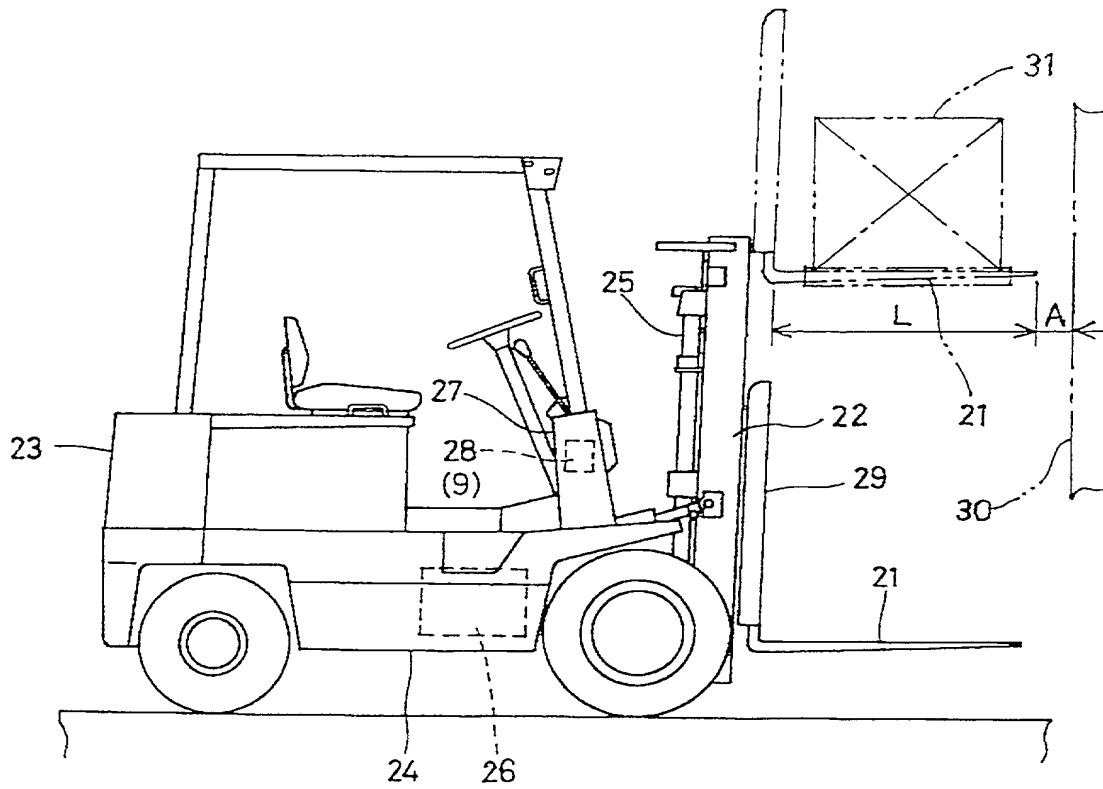
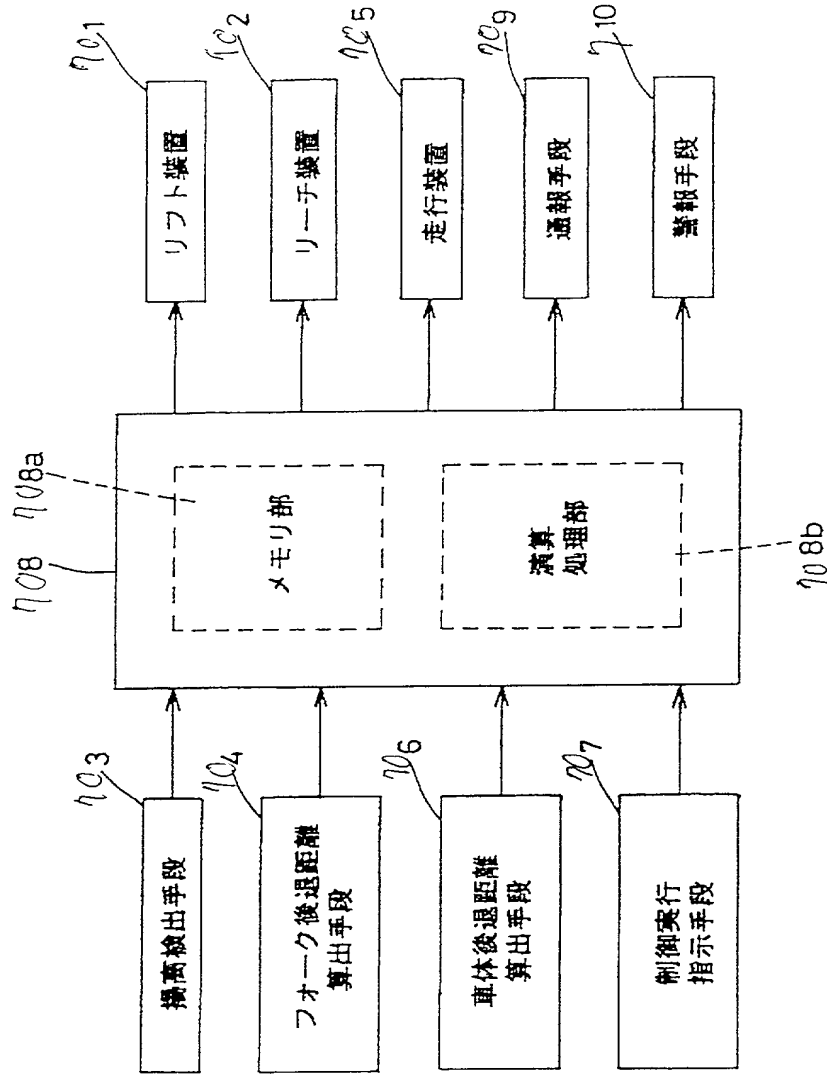


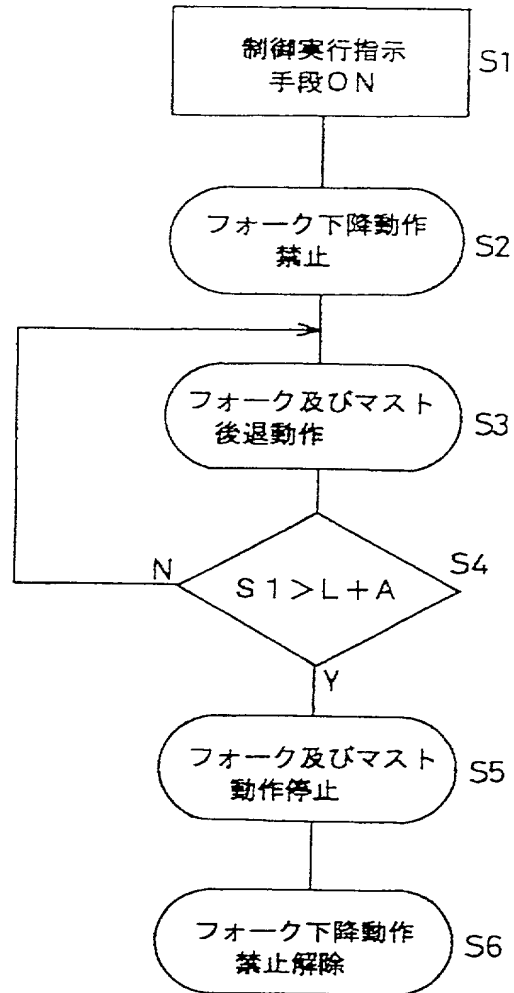
FIG. 23

FIG. 24



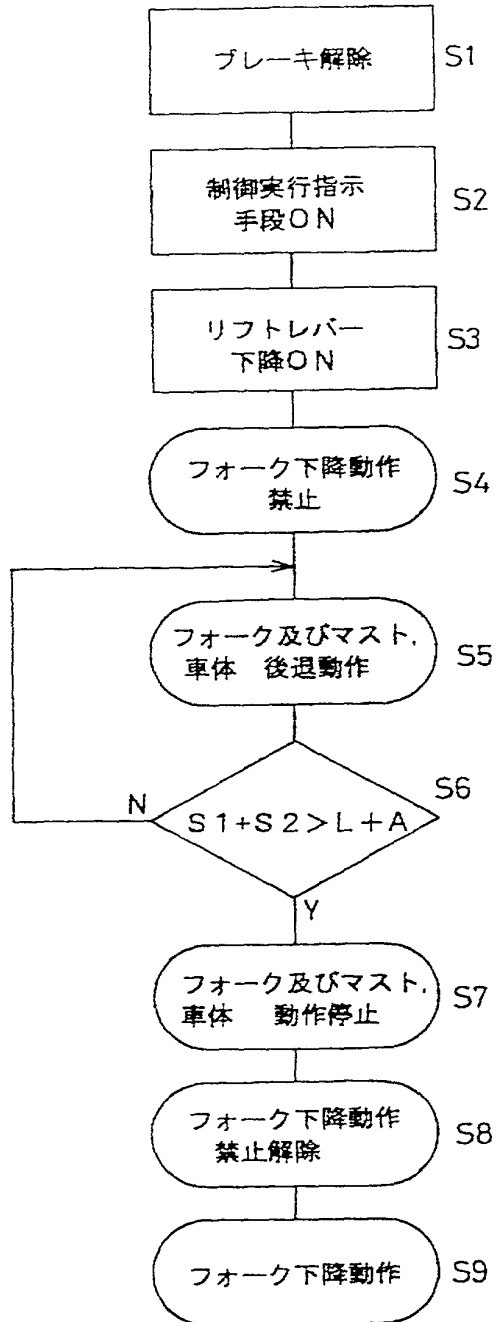
701: lift unit; 2: reach unit; 3: lift height detecting section; 4: fork rearward distance calculating section; 5: running system; 6: vehicle body rearward distance calculating section; 7: control execution designating section 708: controller 708a: memory unit; 8b: arithmetic processing unit; 9: information section; 10: alarm section.

FIG. 25



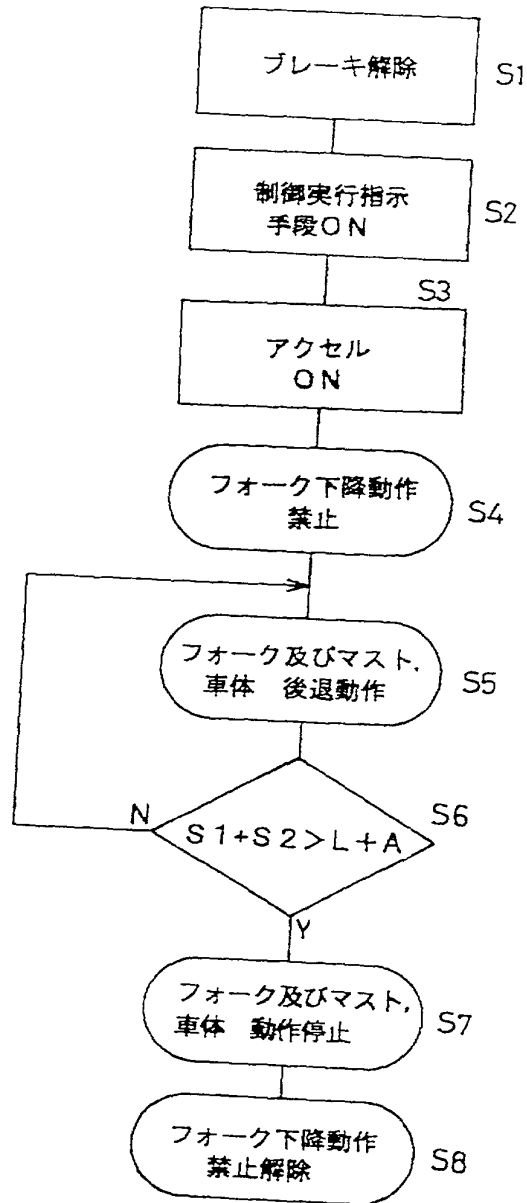
s1: switch on a control execution designating section; S2: prohibit forks from lowering; S3: move the forks and masts rearward; S5: stop the operation of the forks and masts; S6: cancel the prohibition of the forks from lowering.

FIG. 26



S1: release a brake; S2: switch on a control execution designating section; S3: switch on to lower a lift lever; S4: prohibit forks from lowering; S5: move the forks and masts, and a vehicle body rearward; S7: stop the operation of the forks and masts, and the vehicle body; S8: cancel the prohibition of the forks from lowering; S9: lower the forks.

FIG. 27



S1: release a brake; S2: switch on a control execution designating section; S3: depress an accelerator pedal; S4: prohibit forks from lowering; S5: move the forks and masts, and a vehicle body rearward; S7: stop the operation of the forks and masts, and the vehicle body; S8: cancel the prohibition of the forks from lowering.

FIG. 28

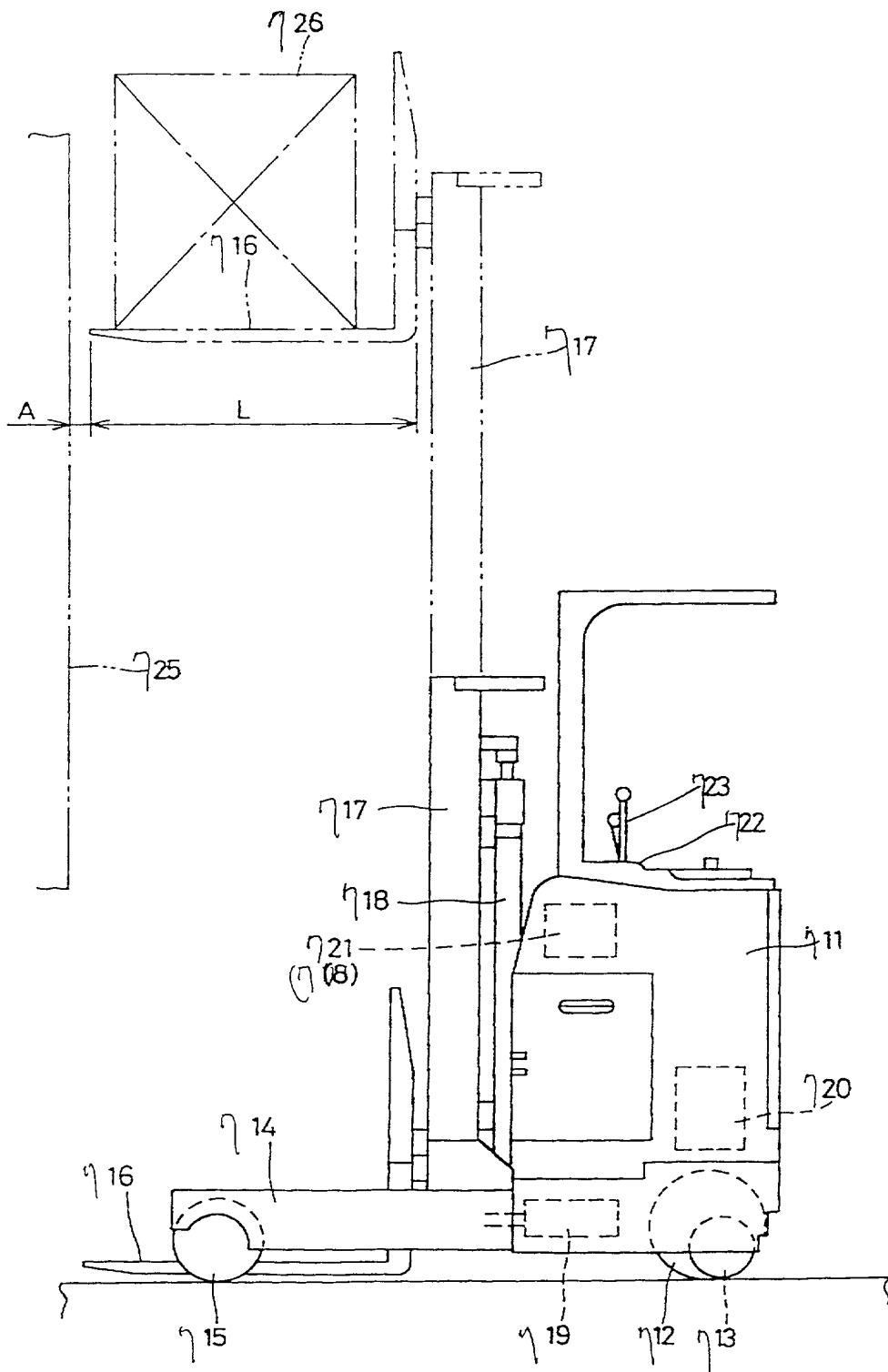


FIG. 28

814: tilt driving section, 817a: arithmetic processing unit, 817b: memory unit, 831: lift unit, 832: reach unit, 833: lift height detecting section, 839: tilt detecting section, 845: information section, 846: lowering prohibition canceling switch, 847: vehicle body stopping section.

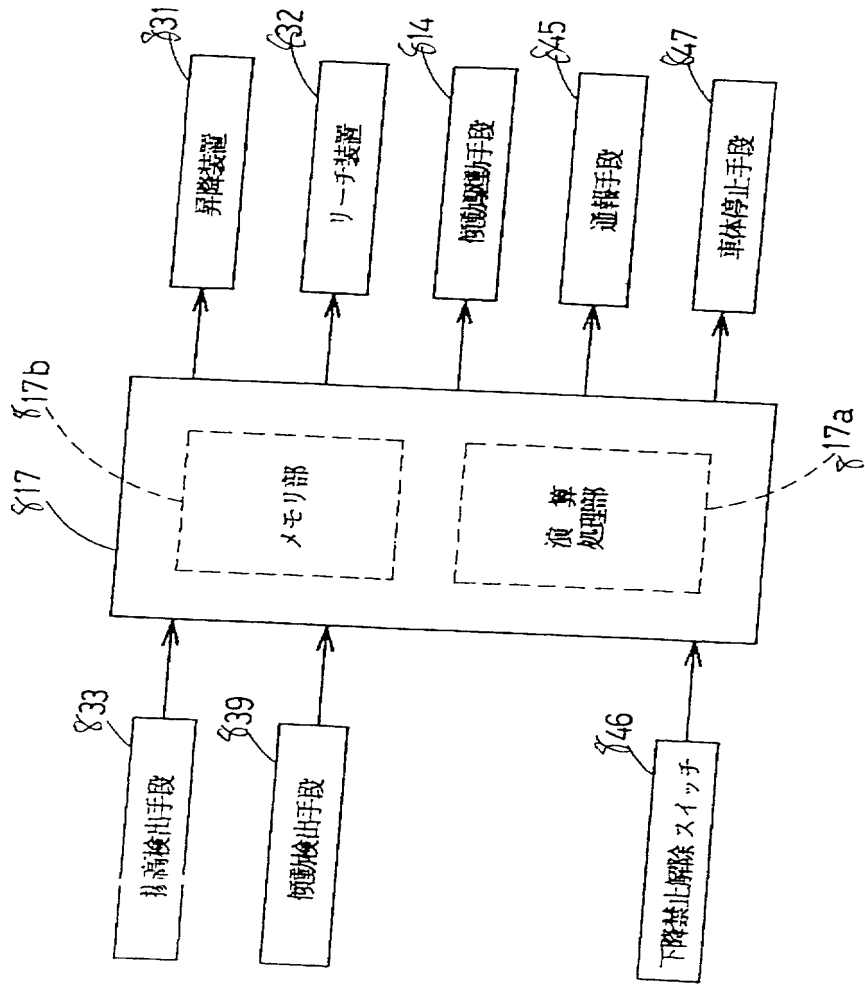


FIG. 29

FIG. 30A

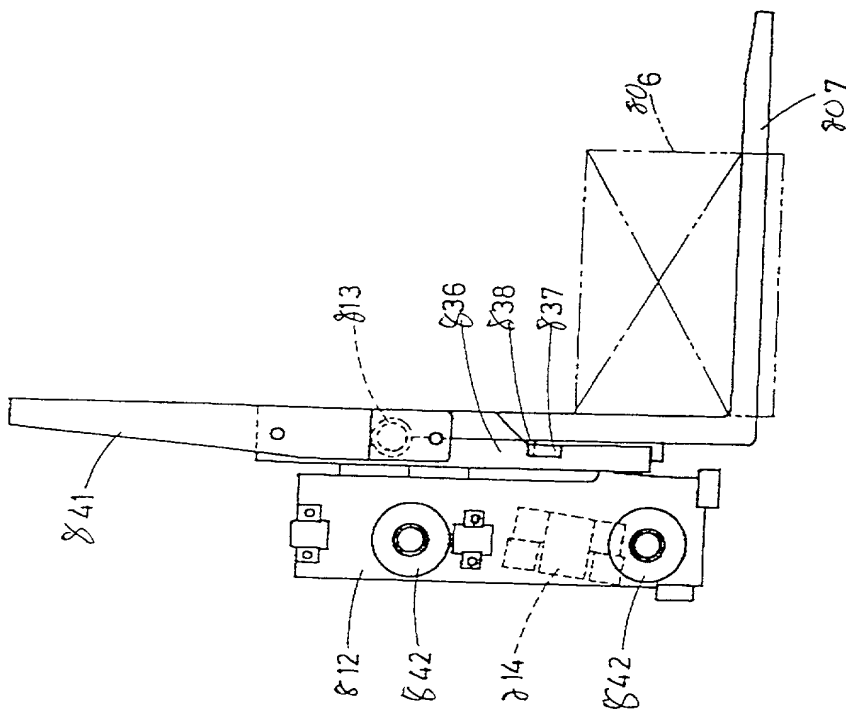


FIG. 30B

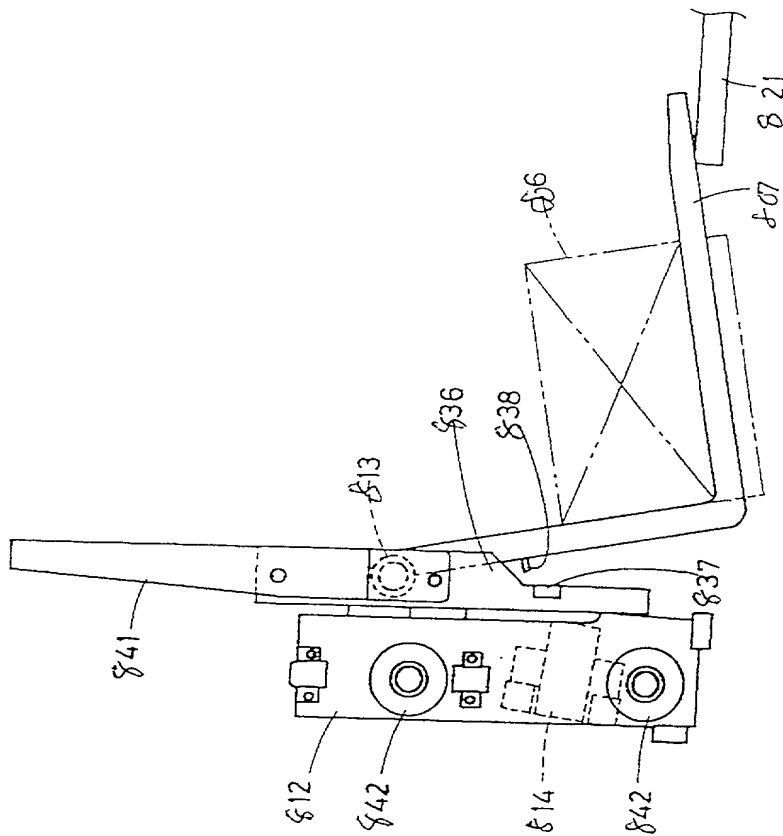
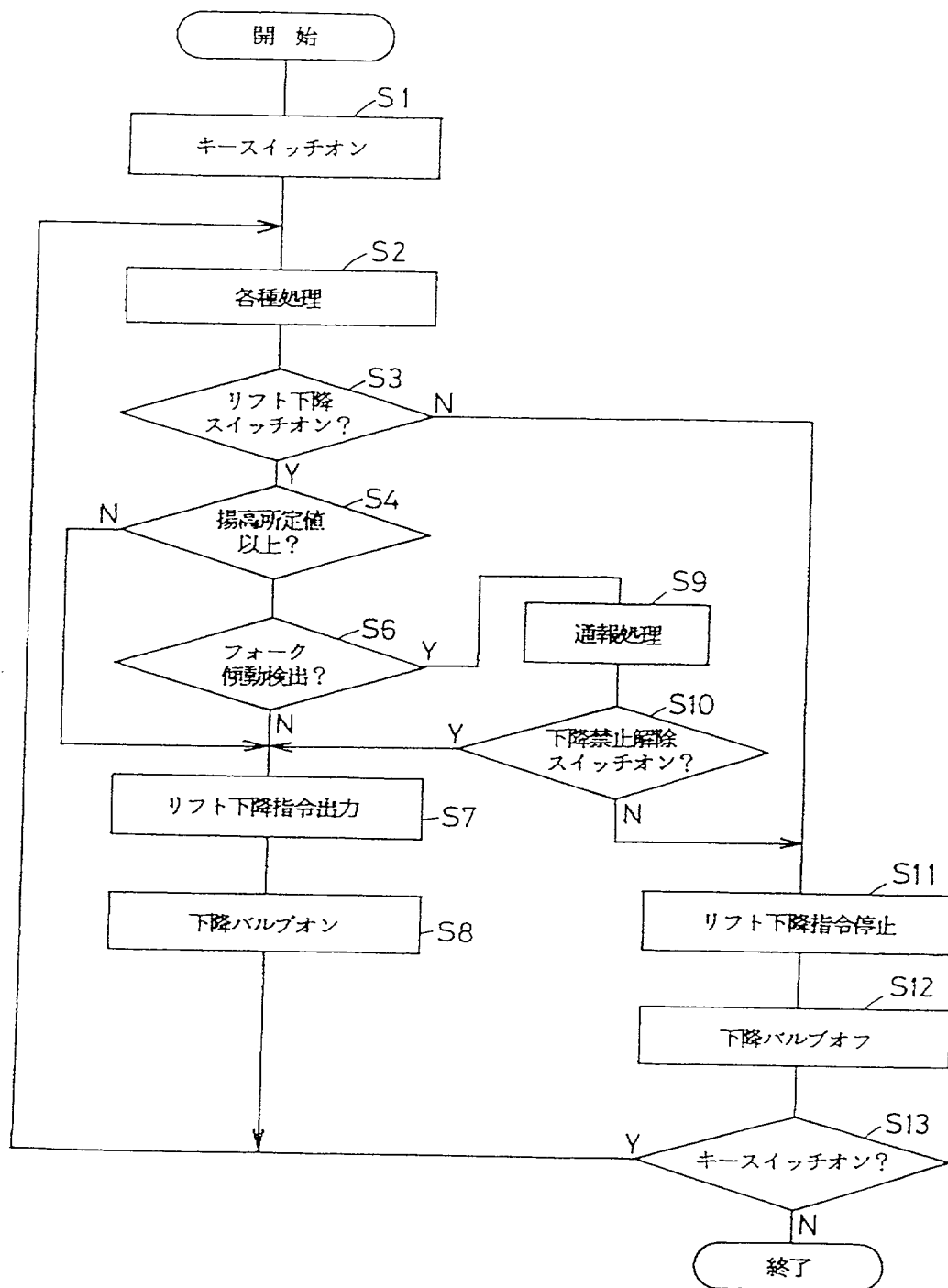


FIG. 31



Start; s1: switch on a key switch; S2: various processings; S3: is a lift lowering switch switched on?; S4: is a lift height position equal to or greater than a predetermined value?; S6: is a fork tilt detected?; S7: output a lift lowering command; S8: switch on lowering valves; S9: information processing; S10: is a lowering prohibition canceling switch switched on?; S11: cancel the lift lowering command; S12: switch off the lowering valves; S13: is the key switch switched on?; End.

FIG. 32A

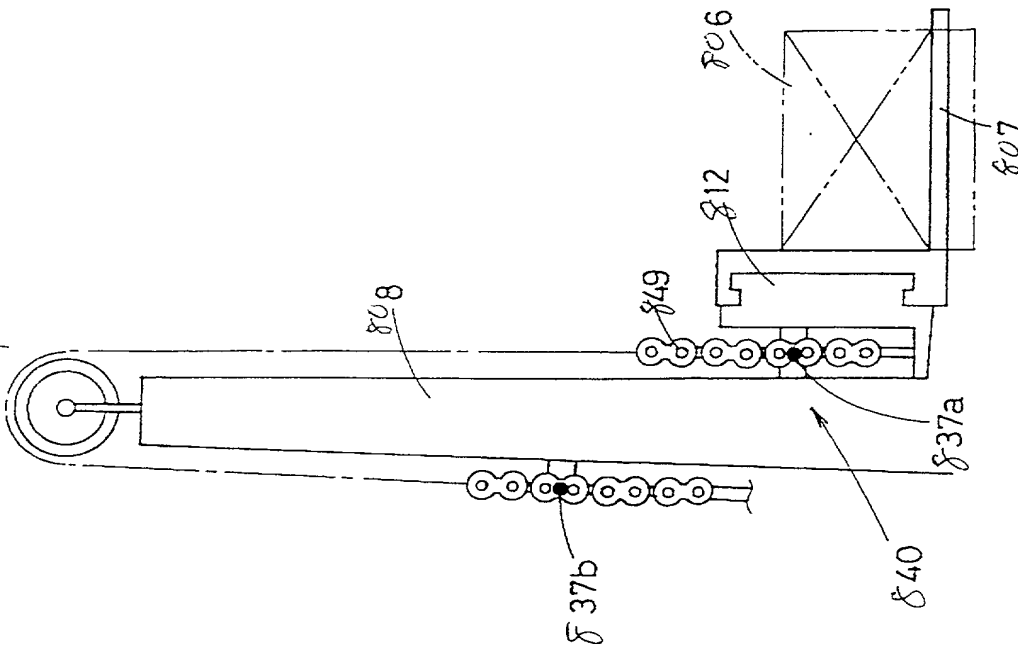
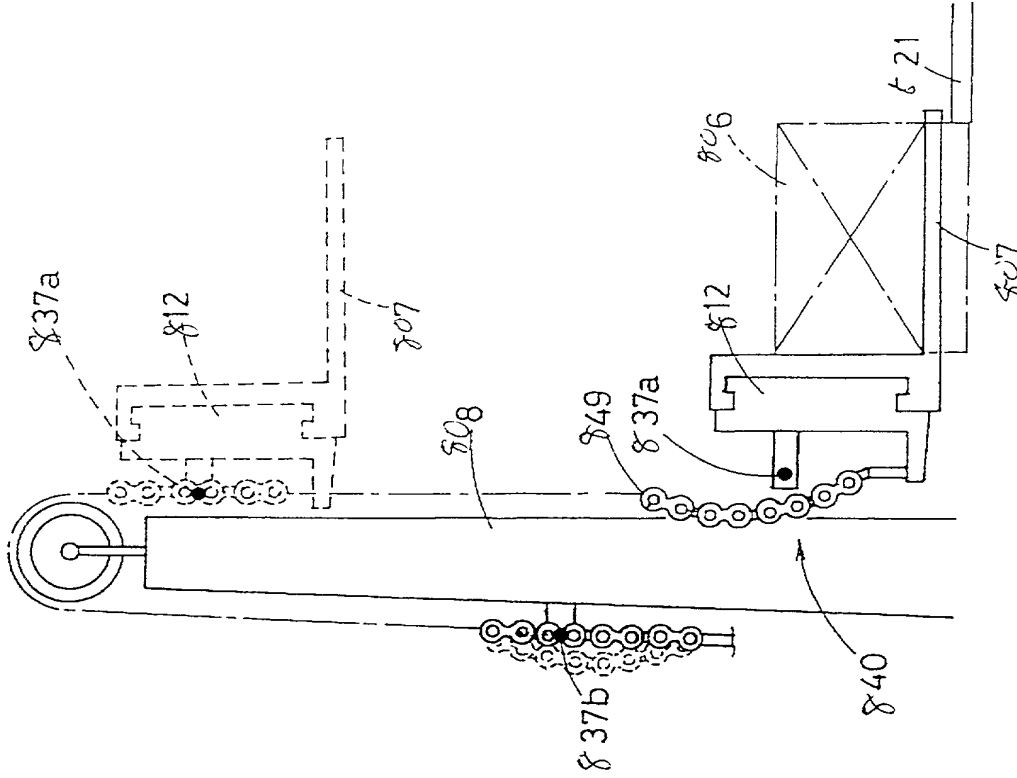


FIG. 32B



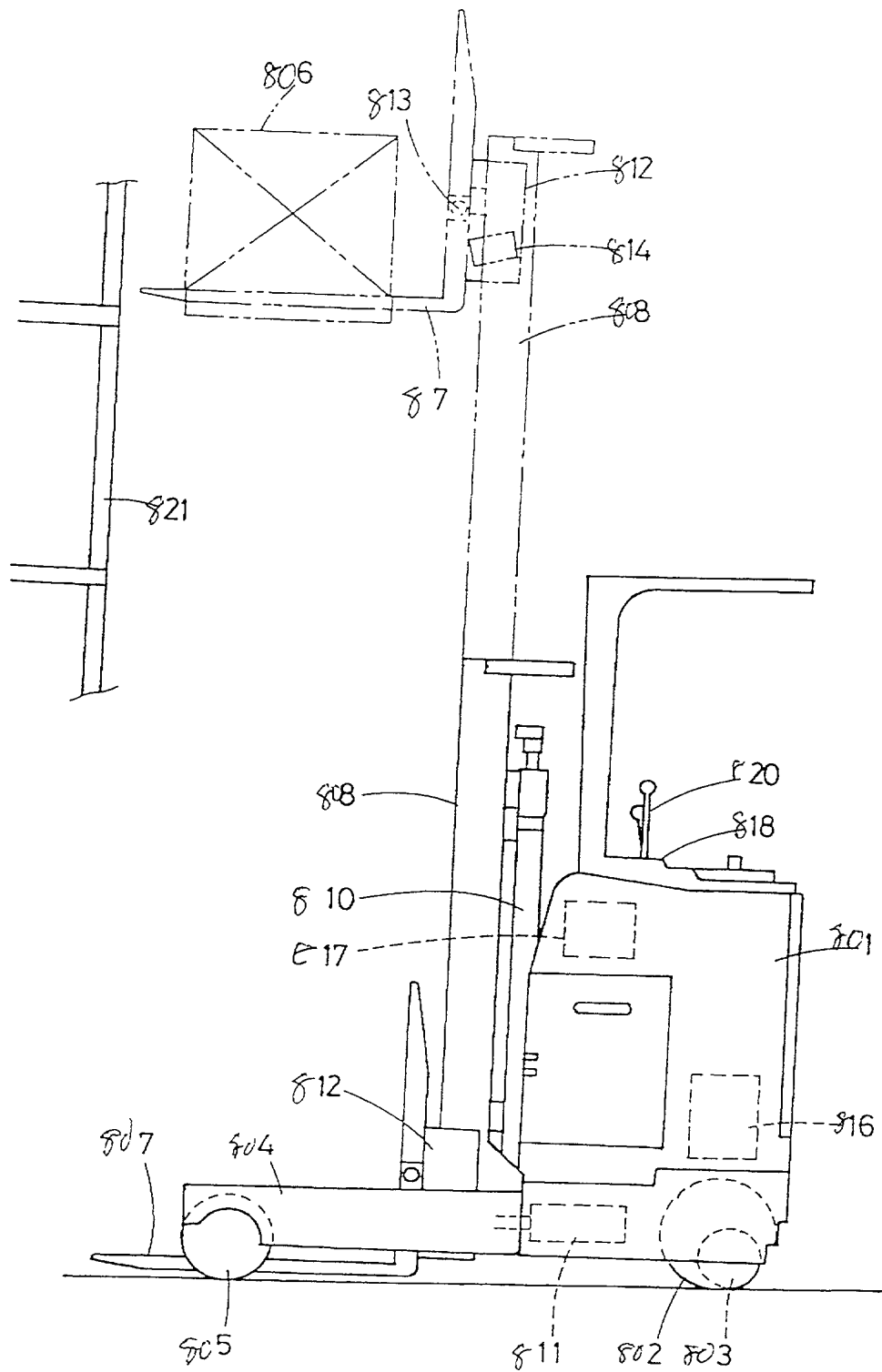


FIG. 34

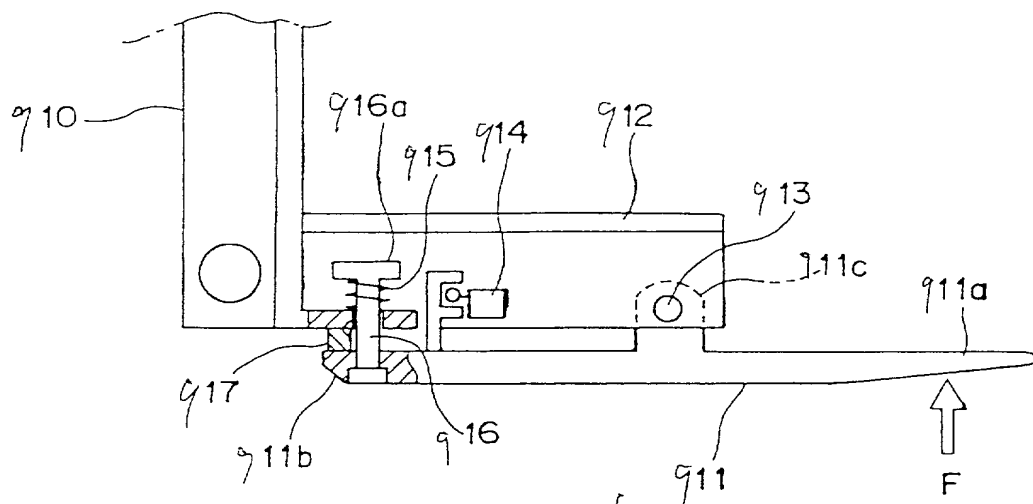


FIG. 35

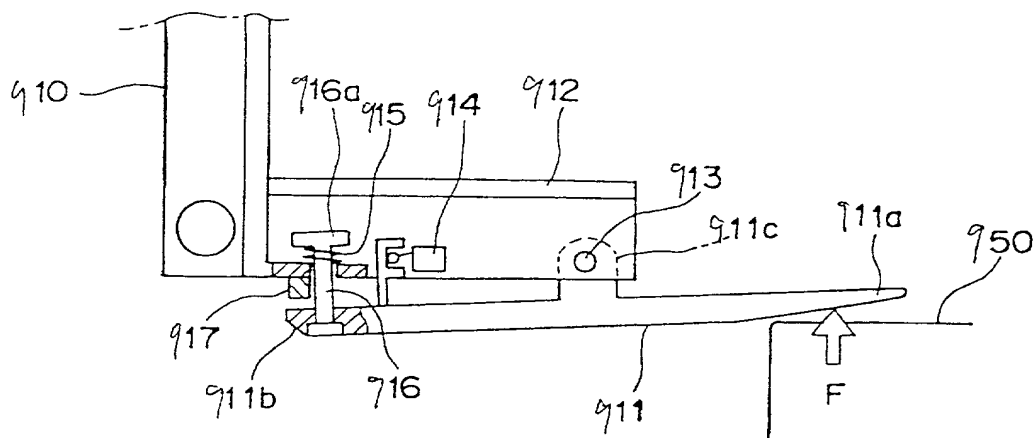


FIG. 34

FIG. 36

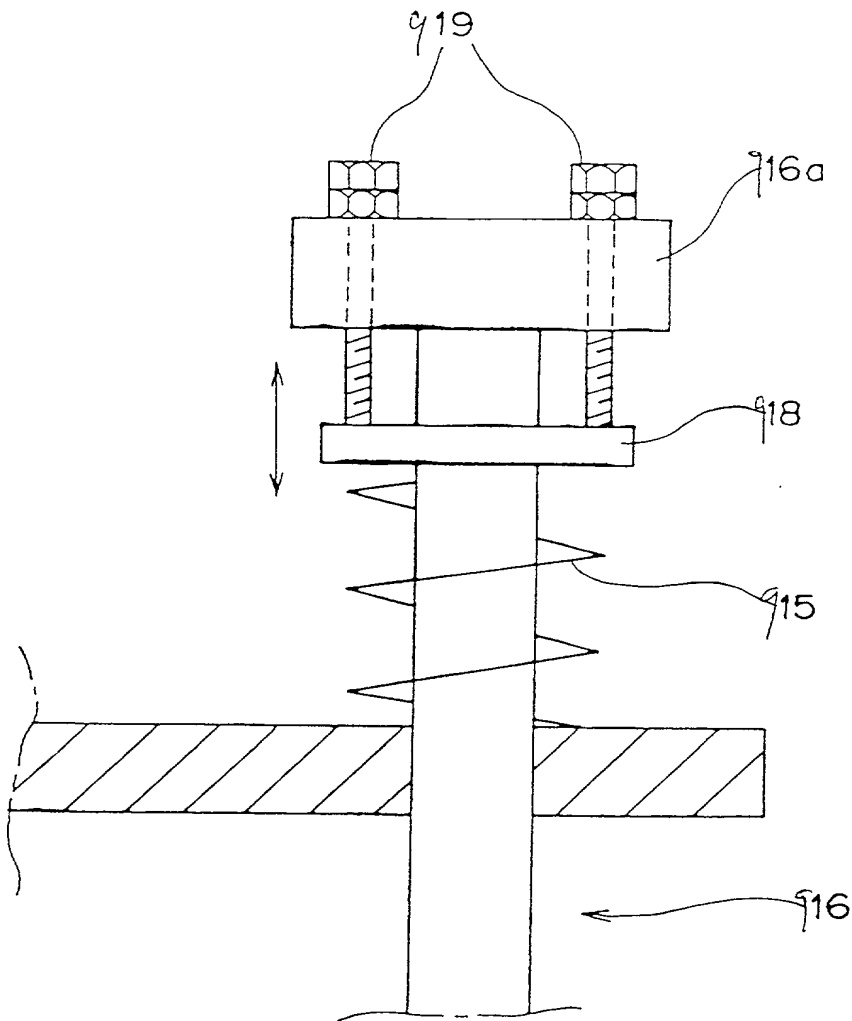


FIG. 36

FIG. 37

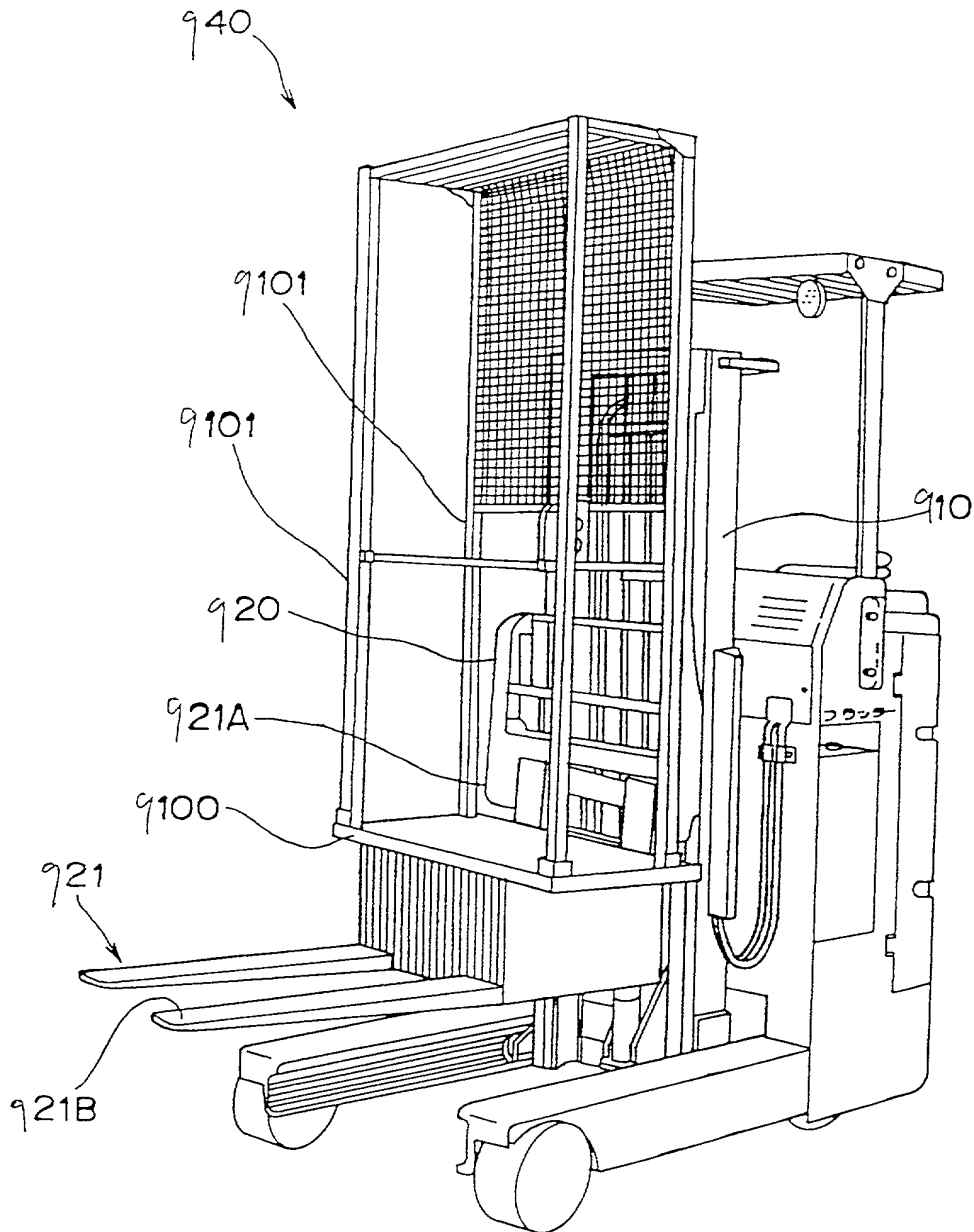


FIG. 37

FIG. 38

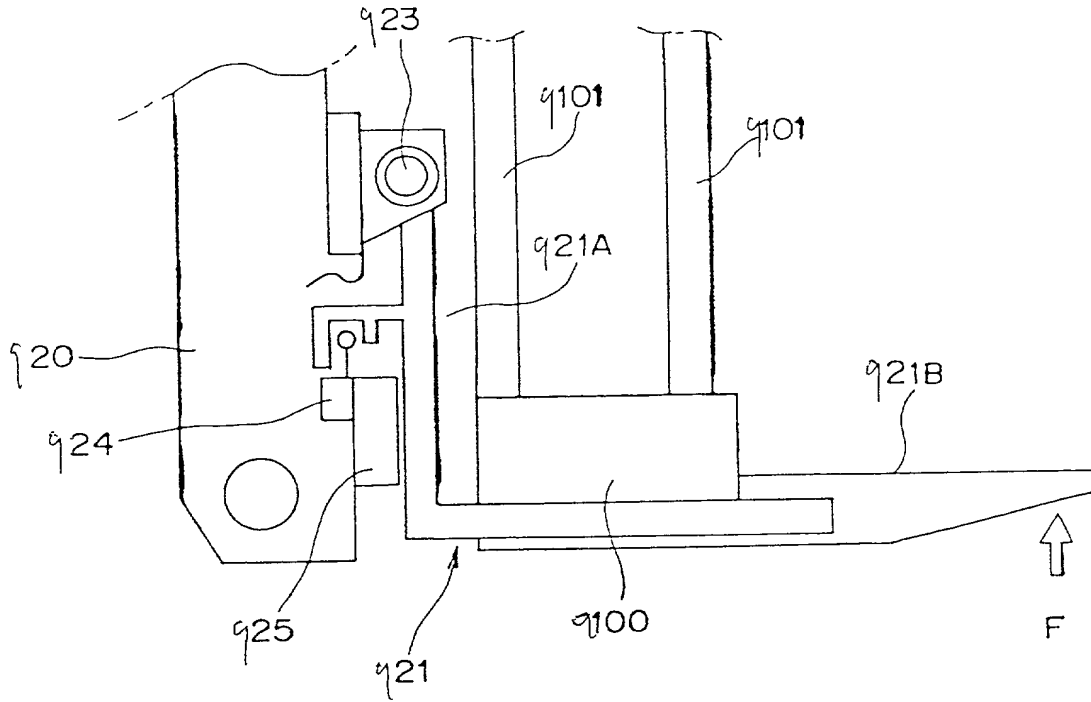


FIG. 39

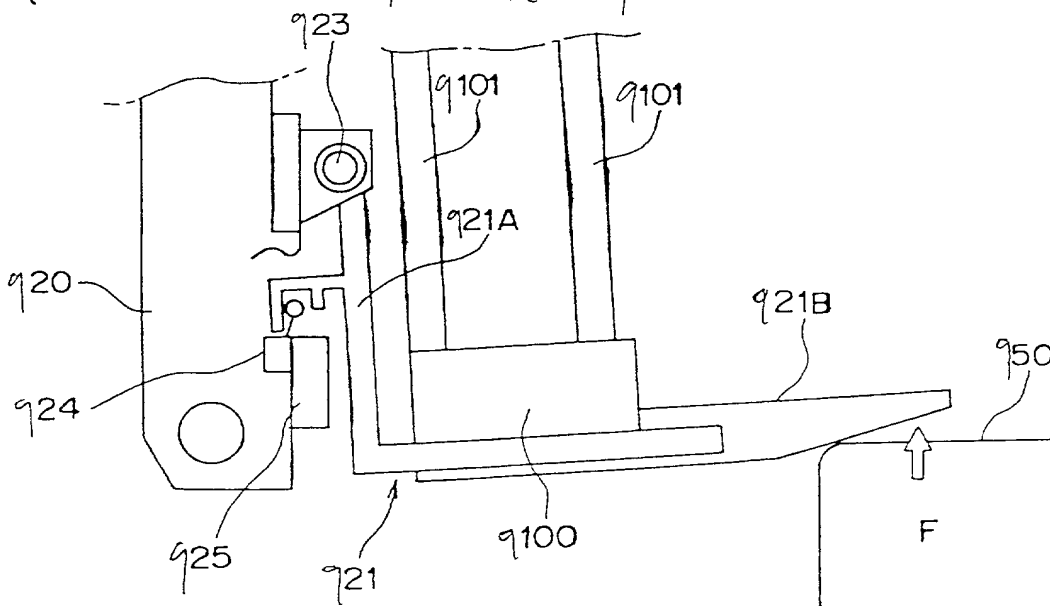


FIG. 38

FIG. 40

9 30

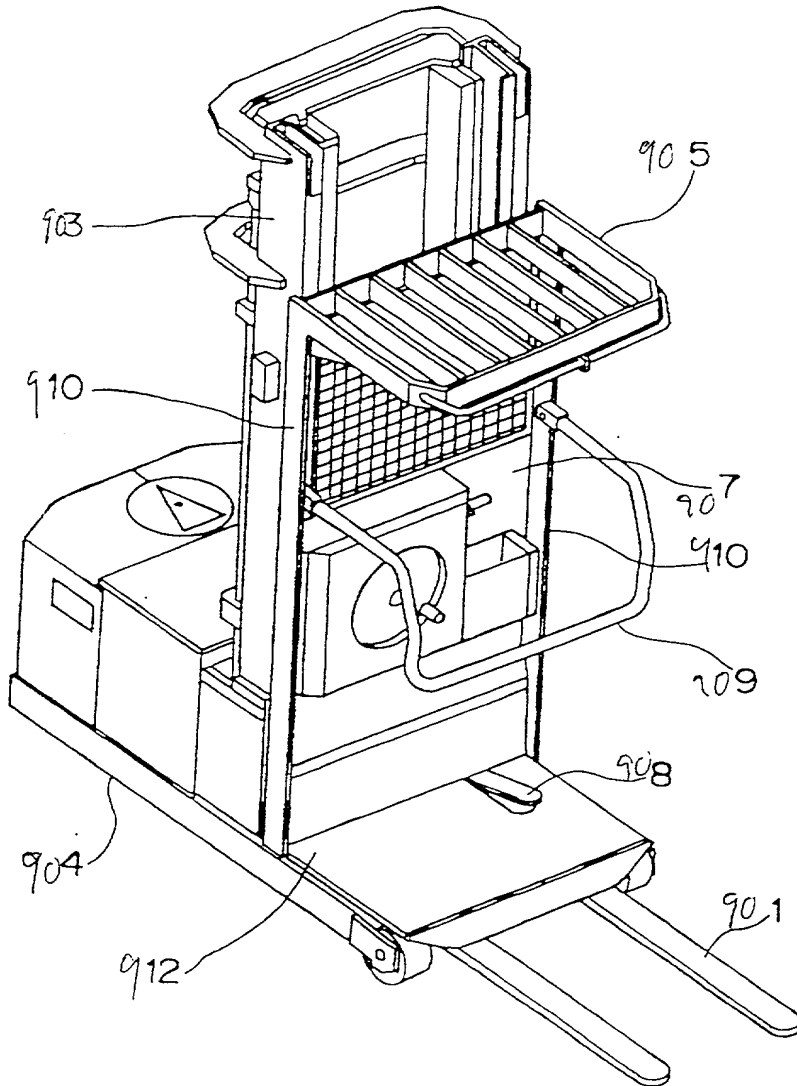


FIG. 40

FIG. 41

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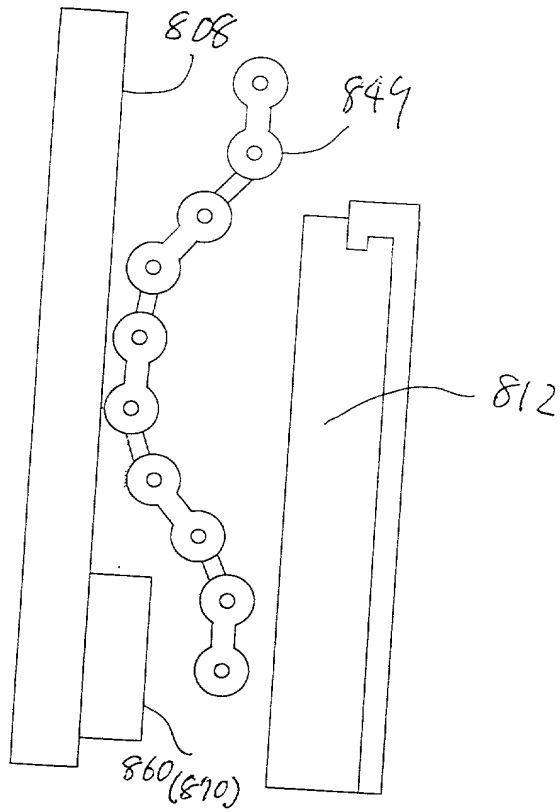


FIG. 41 56652860

FIG. 42A

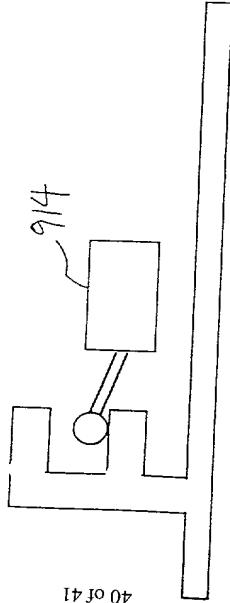


FIG. 42B

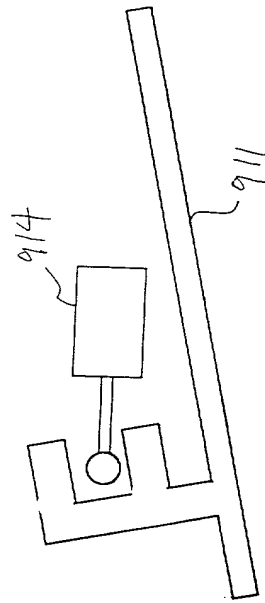


FIG. 43A

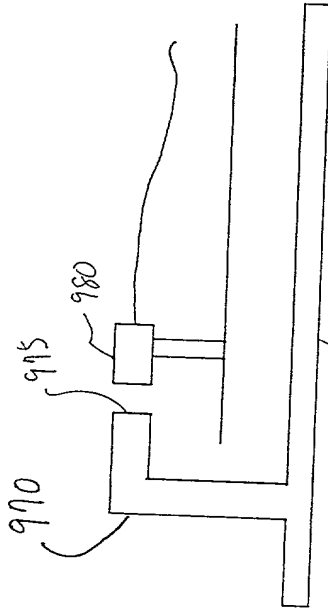


FIG. 43B

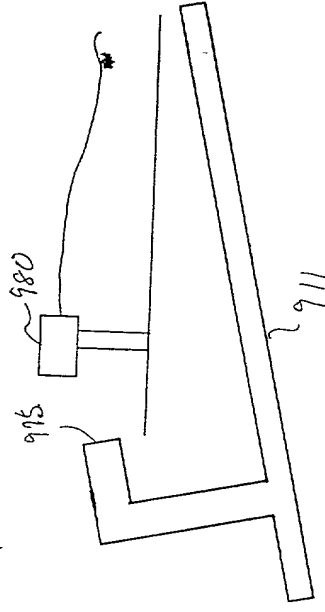


FIG. 44A

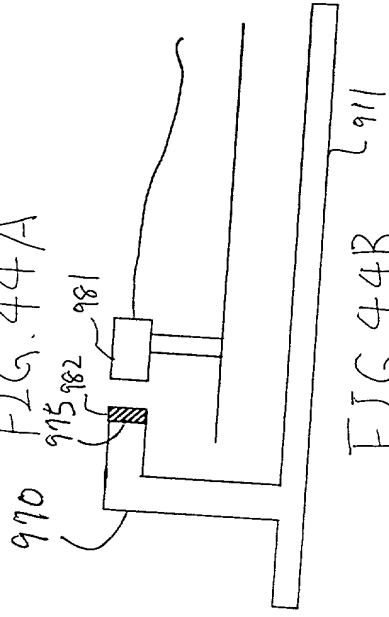


FIG. 44B

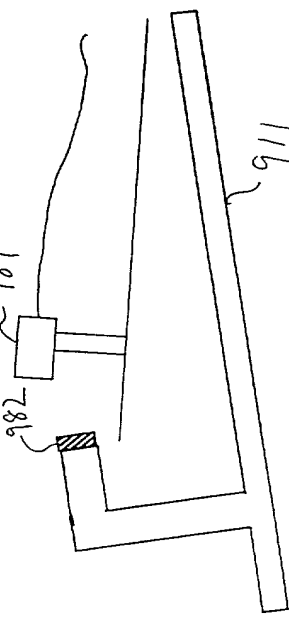


FIG. 45A

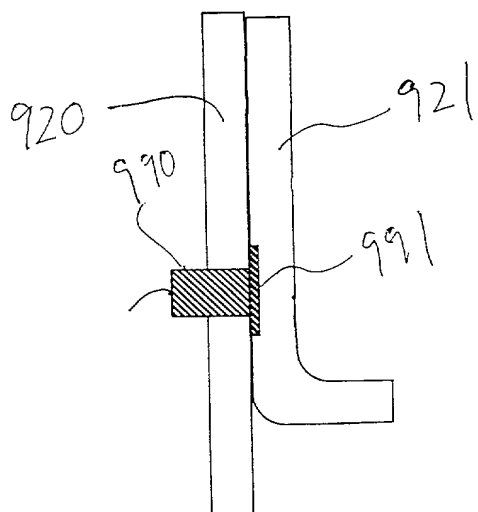


FIG. 45B

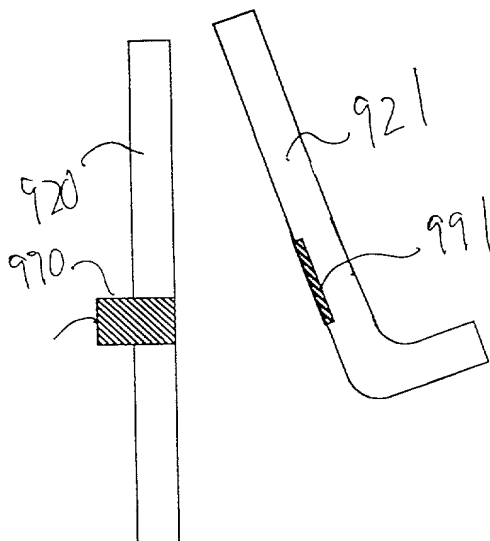


FIG. 46

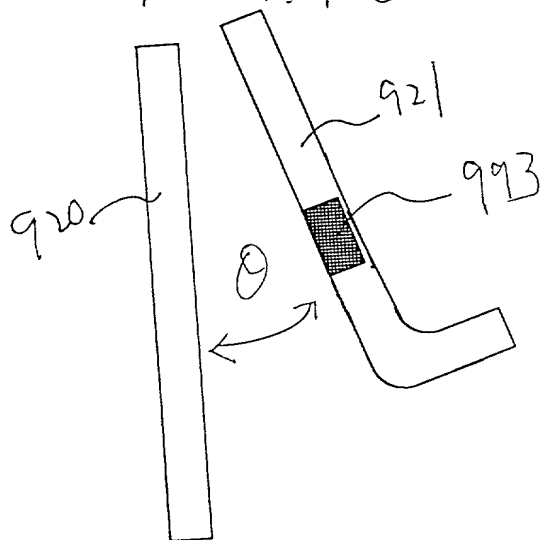


FIG. 47A

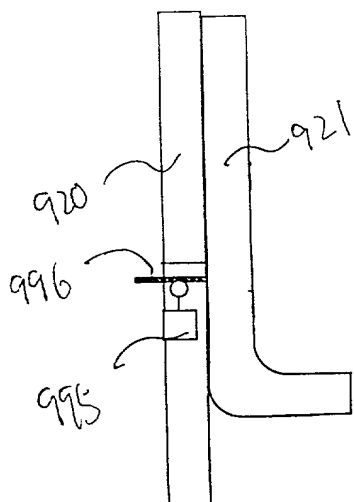


FIG. 47B

